SUGAR REPORTS

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MARKET REVIEW

The U. S. Department of Agriculture announced on Feb. 9, 1971 that the first quarter limitation on total raw sugar imports has been raised by 100,000 tons to a total of about 888,000 short tons, raw value. The press release accompanying the action has been reproduced on page 27.

Stocks of raw and refined sugar held by all primary distributors on Jan. 30, 1971 totaled 3,019,000 short tons, raw value, according to preliminary reports. This was 235,000 tons more than a month earlier and 162,000 tons more than at the end of January a year ago. Cane sugar refiners' stocks declined 174,000 tons during January and on Jan. 30 totaled 886,000 tons, or 126,000 tons more than at the end of January last year. Beet processors' stocks of 1,679,000 tons were 331,000 more than at year-end 1970 and 2,000 tons more than on Jan. 31, last year.

Sales of sugar by primary distributors were off to a good start in 1971--reported deliveries of 1,061,000 tons through Feb. 13, 1971 compared with 1,188,000 tons through this date last year and 988,000 tons in 1969. However, at year-end 1970 there were 170,000 tons of sugar constructively delivered, i.e. sugar sold and charged to quotas in December 1970 but for physical delivery during the first two months of 1971. Constructive deliveries in 1969 totaled 40,000 tons and in 1968, 217,000 tons. If it is assumed that three-fourths of the constructive deliveries would have been made by Feb. 13, physical deliveries in 1971 through Feb. 13 would total 1,189,000 tons compared with 1,218,000 tons last year and 1,151,000 tons during the comparable period of 1969.

Regionally, reported distribution of refined sugar by states of destination totaled 213 million hundredweight for calendar year 1970, or 6.1 percent more than the 200 million hundredweight reported in 1969. (Deliveries in 1969 included 40,000 tons of constructives compared with about 170,000 tons in 1970. Physical deliveries during 1970, therefore, totaled 210 million hundredweight as compared with 204 million in 1969.)

In 1970, cane sugar refiners delivered 66.5 percent of the total reported compared with 31.6 percent delivered by beet sugar processors. In 1969, cane sugar refiners delivered 68.0 percent of the total compared with deliveries of 30.2 percent by beet sugar processors.

All of the geographic regions received more sugar during 1970 than in 1969. Deliveries in the North Central region were up the most-9.0 percent, followed by the West where they were up 7.3 percent, the South 4.3 percent, the mid-Atlantic 4.1 percent and New England 1.6 percent.

Individually, 40 states received more sugar in 1970 than during 1969, eight states received less and two about the same amount. In 23 states, deliveries in 1970 exceeded those of 1969 by more than 100,000 hundredweight. In Illinois and California 1970 reported deliveries showed increases of 2.609 million and 1.559 million hundredweight, respectively. These two states alone accounted for about 32 percent of the reported increase in deliveries of refined sugar in 1970.

For the eight states when deliveries of refined sugar declined in 1970, as compared with 1969, the range was from 62,000 hundredweight less in Georgia to 4,000 hundredweight less in Delaware.

Several announcements of increases in the quoted prices for refined sugar sold in the basis pack--100-pound paper bags--and in bulk were noted for several of the geographic regions. On Feb. 12, a cane sugar refiner announced an increase of .15 cent per pound from 11.20 cents to 11.35 cents in the quoted price for refined sugar sold at wholesale in 100-pound bags in the intermountain Northwest region. The increase, which also applied to sales of bulk sugar, became effective the same day with provision for consideration of orders at the pre-advance prices through close of business Feb. 19, 1971, subject to availability and confirmation. Other interested sellers in the region announced similar increases but with varied effective dates. One beet sugar processor announced the increase would take effect on. Feb. 22, and another at close of business Feb. 26, 1971.

On Feb. 17, two cane sugar refiners announced increases of .30 cent per pound in quoted prices for refined sugar sold at whole in the basis pack in the Southeast, the Gulf, Chicago-west and Southwest sales territories. In the Southeast, list prices for 100-pound bags rose from 11.70 cents to 12.00 cents, in the Gulf from 11.40 cents to 11.70 cents and in the Chicago-west region from 11.60 cents to 11.90 cents per pound. The quoted price for sales of sugar in bulk were also increased .30 cent per pound in each of these regions, except the Gulf where they were increased .40 cent per pound. All of these announcements included provision for shipment at pre-advance prices through Feb. 26, 1971.

A cane sugar refiner in the Northeast on Feb. 17 announced an increase of .30 cent per pound, from 12.20 cents to 12.50 cents in the quoted price for refined sugar sold in 100-pound bags at wholesale, effective the same day. A similar increase in the list price for sugar sold in bulk was included. Provision was also made in the announcement, subject to withdrawal without prior notice, for consideration of orders for sugar in 100-pound bags to the close of business Feb. 26, for shipment during March and April, at .10 cent per pound under the new list prices.

Shown below are the price quotations for refined sugar sold at wholesale in the basis pack and in bulk, by regions. Significant variations of actual prices from the quoted prices may be found in certain areas reflecting competitive conditions.

	Price quotation in cents per pound	
	Hundredweights cane or beet	Bulk dry cane or beet
Northeast	12.40	12.20
Southeast	11.80	11.60/11.70
Gulf	11.30/11.40	11.05/11.15
Eastern beet	11.60	11.45
Chicago-west	11.60	11.45
Lower Pacific	11.20	11.05
Northwest Intermountain	11.35	11.25

The U. S. retail price for refined sugar sold in 5-pound paper bags was 13.40 cents per pound during January, unchanged from December 1970 and up from 12.54 cents in January a year ago.

The spot quotation for raw sugar duty paid and delivered to New York, as reported on the New York Coffee and Sugar Exchange averaged 8.35 cents per pound in January, up from 8.02 cents in December and 8.11 cents in January of last year.

The New York quotation finished calendar year 1970 on a strong note and has continued strong throughout January and early February. On Feb.1, 1971 the quotation was 8.40 cents per pound and on Feb. 3 it rose to 8.45 cents. For the period Feb. 1-22 the quotation has averaged 8.44 cents per pound, up from 7.97 cents during the same period last year.

Sugar production in Florida from the 1970-71 crop, as of Feb. 5, totaled 428,000 tons, raw value, with almost 70 percent of the crop harvested and processed. Production from the current crop is estimated at about 625,000 tons, raw value, compared with production of 532,000 tons last year.

Cane sugar production in Puerto Rico in 1971 totaled 35,000 tons through Feb. 14 with 11 mills grinding. Grinding of the 1970 crop began in November 1969 and by Feb. 15, 1970, 16 mills had commenced operations and 111,000 tons of sugar had been produced.

Production of 1971 crop cane sugar in Hawaii totaled 21,805 tons, 96° basis through Feb. 6 compared with 27,307 tons produced through Feb. 7 of last year.

The World spot quotation for raw sugar bagged and stowed at Greater Caribbean ports, including Brazil (No. 8 Contract) averaged 4.82 cents per pound during January, up from 4.16 cents in December and 3.12 cents during January of last year. The World spot quotation has been above 4.00 cents per pound since Oct. 19, 1970. In January the quotation continued strong starting the month at 4.27 cents and rising to 5.20 cents on Jan. 29. The quotation has weakened some in early February, falling from 5.10 cents per pound on Feb. 1 to 4.65 cents on Feb. 10 before recovering to 4.98 as of Feb. 19. For the period Feb. 1-22, the quotation averaged 4.90 cents compared with 3.19 cents during the comparable period of last year.

The quotation for World bulk sugar (No. 11 Contract of the New York Coffee and Sugar Exchange) averaged 4.73 cents per pound during January, up from 4.08 cents in December 1970. The difference in the quotations under the two contracts, which primarily represents the costs of bags and bagging, has ranged from .10 cent per pound in May 1970, when No. 11 Contract was first initiated, to .06 cent in July and August. During September, October and November the No. 11 Contract spot quotation averaged .07 cent below that of the No. 8 Contract, in December, .08 cent less, and in January 1971, .09 cent less.

The No. 11 futures Contract replaced the No. 8 futures Contract at year-end 1970. On Feb. 22 the quotations for the No. 11 Contract ranged from 4.82 cents per pound for delivery in May 1971 down to 4.65 cents for delivery in July 1972.

LABOR PRODUCTIVITY ON SUGARBEET AND SUGARCANE FARMS IN THE UNITED STATES 1946-69

by
William N. Garrott

September issues of Sugar Reports have for a number of years published data relating to the production of sugar, field worker requirements and earnings for the domestic sugar producing areas. These data-useful in evaluating the productivity of the farm operation for producing sugar -- are available for a continuous period from 1946 through 1969. An earlier study of productivity based on the data during the period 1946 through 1960 was published in Sugar Reports No.115, November 1961. The present study, which is an extension and elaboration of the earlier one, analyzes the changes in the labor productivity in the farming segment of the sugarbeet industry and for each of the domestic sugarcane producing areas in the United States and Puerto Rico for the period 1946 through 1969.Labor productivity, as measured in this study, is the relationship between raw sugar output and farm labor inputs.

The data used as the basis for comparison in this article are expressed in terms of the generally accepted base period of 1957-59 with comparisons to the 1947-49 base period used in the earlier study. Table 22 in Sugar Reports No. 220, issued in September 1970, shows most of the basic data used in the analysis for each of the producing areas. Comparable data are not available prior to 1946.

CHANGES IN LABOR PRODUCTIVITY

"The total volume of U. S. farm output reached a new high in 1969. Output was one percent greater than in 1968 and 21 percent above the 1957-59 average. The 1969 advance reflected record production of both livestock and crops." 1/

1/ "Changes in Farm Production and Efficiency." A Summary Report, 1970, USDA Stat. Bul. No. 233, p. 1.

U. S. farm production of all crops (excluding livestock) also rose one percent in 1969 to 121 percent of the average for the 1957-59 base period, Table 1. This was also a record.

The part played by the domestic sugar industry in contributing to this overall record has been an impressive one. Sugar production in 1969 averaged 129 percent of the base period, although down nine percent from 1968 and down 11 percent from the record production of 1964. The long-term trend for the 24-year period for the production of all crops was up 1.42 percent per year compared with sugar production which trended upward 2.47 percent per year.

In 1969 total labor inputs used in the production of all crops had declined by 29 percent of the 1957-59 base while labor inputs to produce sugar declined 22 percent of the base period. The long term trend of labor inputs for all crops was down 4.96 percent per year compared with that of sugar which was down 3.49 percent per year.

Labor productivity, or the relationship of production to labor inputs, for all crops in 1969 averaged 170 percent of the base period compared with sugar labor productivity which averaged 165 percent of the base period. The trend in productivity of labor in the production of sugar did not fare as well as that of all crops averaging an increase of 5.12 percent per year compared with all crops which was up 5.64 percent per year.

Labor productivity in the production of sugar which had exceeded that of all crops in all but four years prior to 1963-1946, 1948, 1958 and 1960 -- lagged behind that of all crops during the period 1963 through 1969, probably because of the rapid increase in the production of sugar by new enterprises, particularly in Louisiana, Florida and the Sugarbeet Area. This began in 1961. The expansion of the domestic industry in these areas, resulting from efforts to fill the additional quotas which became available as the result of cutting off the imports of sugar into the United States from Cuba, brought into production many new and inexperienced growers using land less productive than that already planted to sugar crops. By 1965, however, the industry appeared to have recovered most of the productivity lost because of the rapid expansion during the early 1960's and the upward growth in productivity from 1965 through 1969, while still below that for all crops, increased at a faster rate.

Table 1. Comparison of farm production, labor inputs and farm labor productivity, United States, all crops 1/ and sugar crops 2/ 1946-69

Year	Farm production		Labor inputs		Productivity	
	All crops	sugar crops	All crops	Sugar crops	All crops 3/	Sugar crops 4/
		Indexes 1957-59=100				
1946	89	75	179	155	50	49
1947	85	88	171	171	50	52
1948	97	79	171	151	57	52
1949	92	92	161	146	57	63
1950	89	102	142	148	63	69
1951	91	88	143	130	61	68
1952	95	95	141	138	67	69
1953	94	100	136	134	69	75
1954	93	103	128	127	73	81
1955	96	97	124	114	77	85
1956	95	100	115	107	83	94
1957	93	101	103	104	90	98
1958	104	94	99	97	105	98
1959	103	105	98	100	105	105
1960	108	106	94	95	115	112
1961	106	115	90	96	118	120
1962	107	117	86	94	124	125
1963	111	134	84	105	132	127
1964	108	140	80	109	135	129
1965	115	127	76	92	151	138
1966	111	130	72	89	154	146
1967	117	129	72	84	162	155
1968	120	138	71	84	169	165
1969	121	129	71	78	170	165
24-year trend	+1.42	+2.47	-4.96	-3.49	+5.64	+5.12

1/ From "Changes in Farm Production and Efficiency, a Summary Report, "Economic Research Service, 1965 pp. 15, 30 and 33 and 1970, pp. 5, 13 and 15.

2/ Developed from data of Sugar Division, ASCS, USDA, and includes production from mainland sugarbeet and sugarcane area and Puerto Rico and Hawaii. Based on the production of tons of sugar, raw value.

3/ Farm production divided by labor inputs.

4/ Tons of sugar, raw value, divided by manhours of farm labor inputs.

Since 1946, labor productivity of sugarbeet and sugarcane fieldworkers has failed to show an increase in only four years - 1948, 1951, 1958 and 1969. In terms of the 1947-49 base period of the earlier study, productivity in 1969 had increased about 198 percent, or 9.9 percent per year. This contrasts with a study by Ferris and Gale[2/] in which they found that labor productivity in the processing end of the sugar industry (raw cane sugar mills, cane sugar refineries and beet sugar processors) had increased an average of about 4.5 percent per year over the last two decades. Figure 1 compares the indexes of sugar production, manhours of field labor input per ton of sugar produced and the labor productivity for the domestic sugar producing areas for the period 1946 through 1969.

There were two quite different trends in labor productivity of sugarbeet and sugarcane fieldworkers during the 24-year period. From 1947-49 to 1959 labor productivity increased 90 percent, or 9.0 percent per year, while during the 1957-59 to 1969 period the increase was 65 percent or 6.5 percent per year.

The varying rates of change, observed, applied to different levels of productivity in the several areas in the base period and the levels in 1969 still differed widely. Hawaii had the highest output of sugar per manhour of labor input of any of the areas in all of the years while the sugarbeet area ranked second from 1946 through 1951, from 1959 through 1964 and in 1968. Florida had the second highest output per manhour of input from 1952 through 1958, from 1965 through 1967 and in 1969. Louisiana ranked fourth in all years of the study and Puerto Rico ranked last.

In terms of the base period 1957-59, for 1969 Louisiana with an index of 205 and Hawaii with an index of 158 had the largest annual rates of productivity gain, 10.5 and 5.8 percent, respectively. These average annual rates of gain for the other areas were 2.8 percent in the Beet Area, 2.2 percent in Florida, and -0.5 percent in Puerto Rico.

In terms of the 1947-49 base period of the earlier study, for Louisiana with an index in 1969 of 467 and Florida with an index of 322, had the largest annual rates of productivity gain, 18.4 percent and 11.1 percent respectively. Average rates of gain for the other areas were: Hawaii 8.8 percent, sugarbeet area 5.7 percent, and Puerto Rico 1.8 percent.

2/ John W. Ferris, Jr. and Hazen Gale, "Trends in Output per Manhour in the Sugar Industry" Monthly Labor Review, July 1970, pp.32-34.

LABOR PRODUCTIVITY ON SUGAR CANE AND SUGAR BEET FARMS

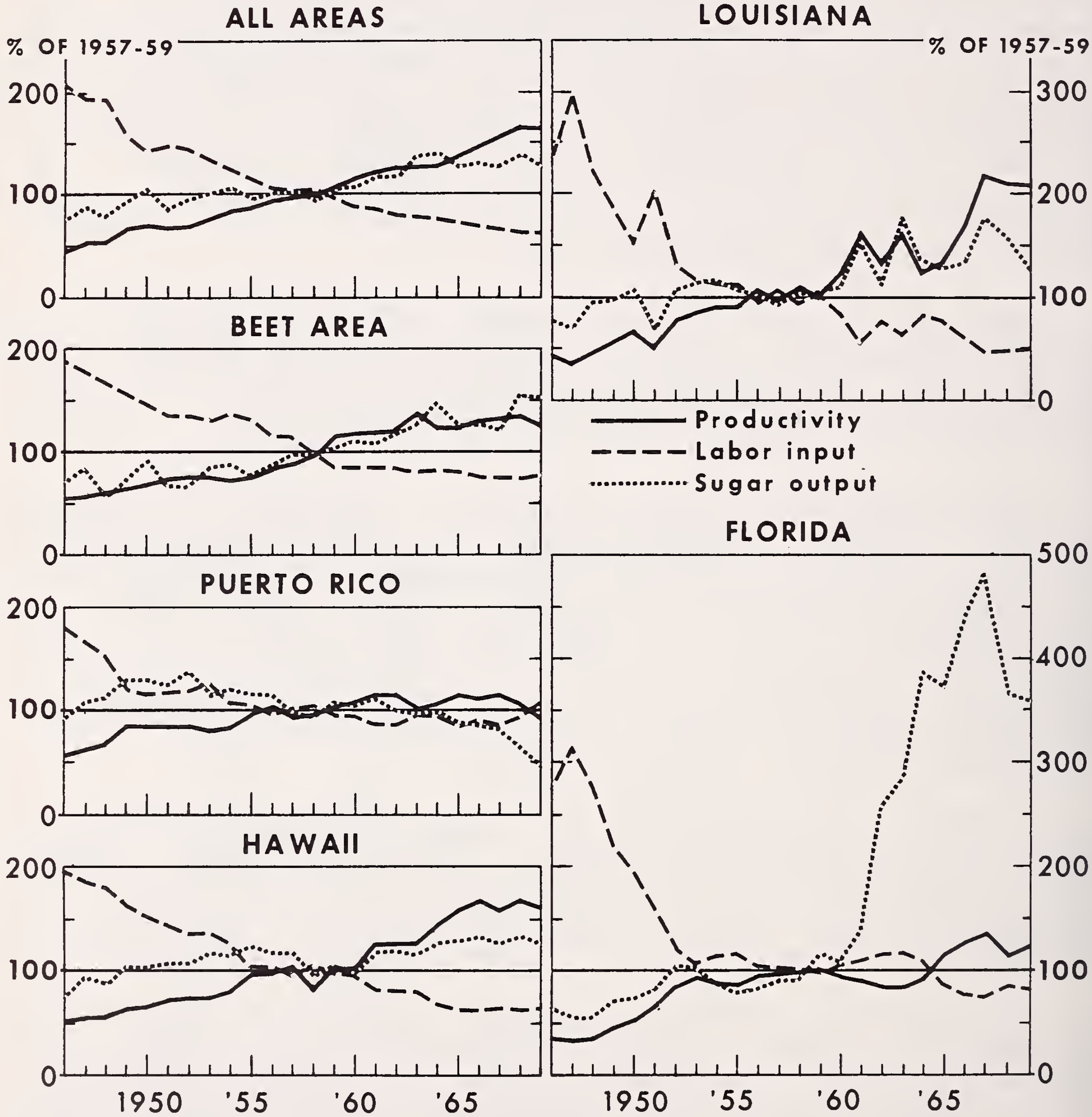

FIGURE I

Labor productivity had doubled in Florida by 1952, in Louisiana by 1954, in Hawaii by 1961, and in the beet sugar area by 1962. The rate of growth in Hawaii was greater during the first half of the 1950's than during the second half. Productivity in Puerto Rico had increased by 48 percent by 1956 but increases in later years were relatively small, and after 1967 when productivity had reached 167 percent of the 1947-49 average, it began to decline and by 1969 had fallen to 136 percent (1947-49 base).

Factors Affecting Labor Productivity

New varieties of sugarcane and sugarbeet seed and improved production techniques have been the most important of the many factors which have brought about increases in labor productivity. Improved techniques include: the use of specialized machines for planting, cultivating and harvesting; improved and more simplified cultural practices; application of improved or new fertilizers, weedicides and pesticides; and better production planning. Other important forces affecting the improvement in labor productivity are the increasing average size of the cane or beet enterprise, improved working conditions for labor and the increased level of wage rates.The underlying causes and the operations in which efficiencies have been realized differ among the several producing areas.

Improvements in production efficiency over the long term have not been achieved without additional costs to producers. They have required investment for research and additional equipment.To make the decisions for capital expenditures for technological progress, the domestic sugar producers have had a relatively comfortable climate of price and volume assurance as compared with producers of other farm crops.

Improved productivity may also be expressed as reductions in manhours of labor required per ton of sugar produced. For all areas collectively, manhour requirements fell from an average of 72 in the 1947-49 base period to about 24 in 1969 -- a reduction of about two thirds. Since 1957-59 the manhours of farm labor required per ton of sugar produced have declined nearly 40 percent. Summarizing for all producing areas, reductions in man-hour requirements were made in every field operation. However, the most significant savings were accomplished in cultivating subsequent to planting and in harvesting, operations which in 1969 still accounted for about two-thirds of the total manhours of labor expended, but in 1946 had accounted for almost three quarters, Figure 2.

MANHOURS PER TON OF SUGAR FOR PRODUCTION OPERATIONS

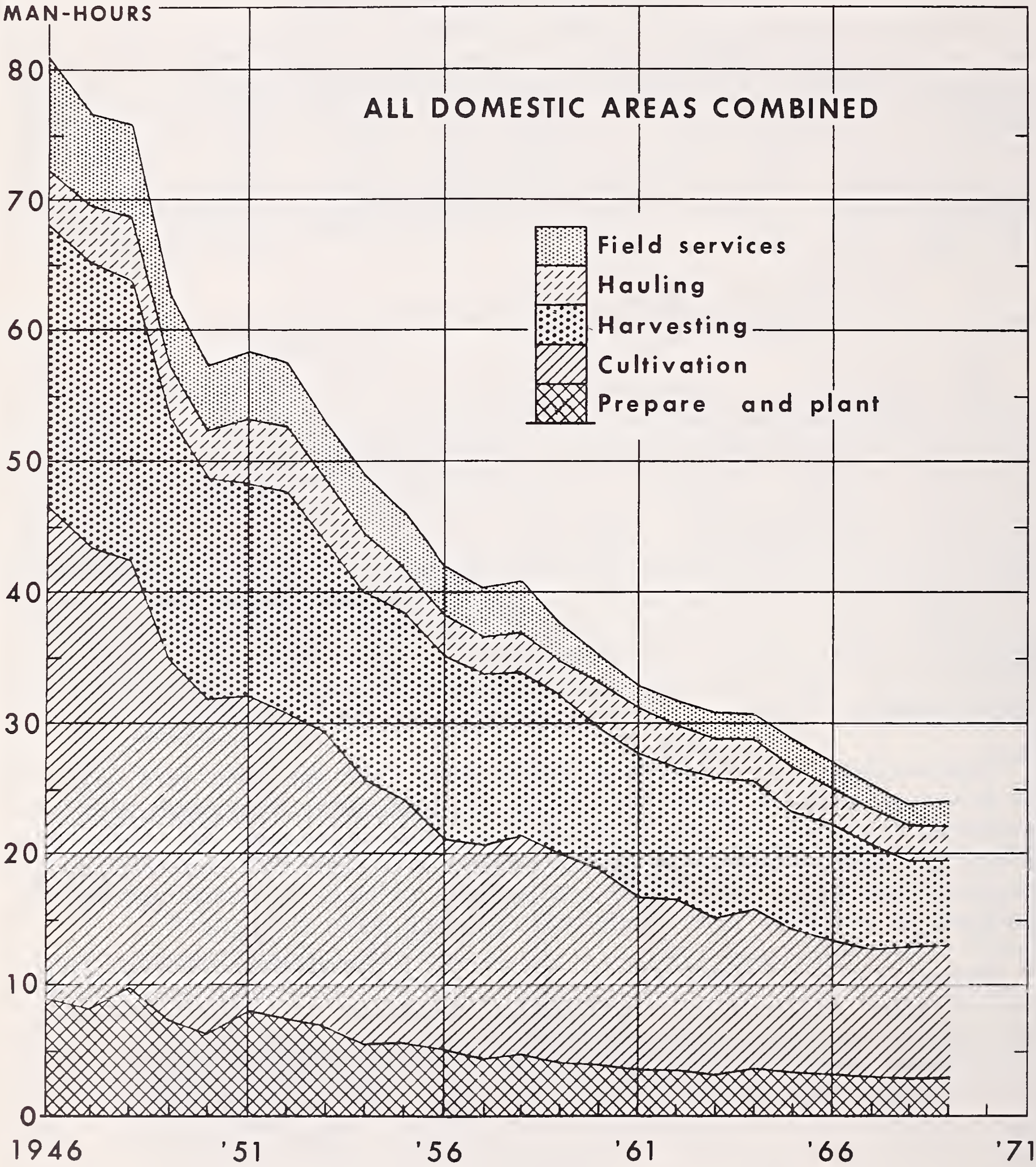

FIGURE II

The use of labor in individual field operations is more graphically expressed in "manhour requirements" than "productivity indexes" and is the basis for the comparison among areas in the following discussion. Manhours of labor per ton of sugar produced is used in this study because it is a more uniform measure than manhours per ton of cane or beets. Its use makes it unnecessary to adjust for differences in the quality of cane or beets among the several areas.

Louisiana

Sugarcane production in Louisiana has been frequently affected by disease, freeze and hurricanes. Since the beginning of World War II the supply of labor had declined due to the exodus of workers and the competition for workers by new industries in and around the sugarcane belt. Thus, the important technological improvements in Louisiana have been directed toward improved varieties of sugarcane which would be disease and freeze resistant, stand up well under the impact of hurricanes and suitable for mechanical harvesting because of upright and fairly uniform heights of the cane stalks. Also, much has been done to develop mechanical harvesters and the substitution of mechanical and chemical weed controls to replace scarce hand labor. Total manhours per ton of sugar in Louisiana in 1969 had declined almost 80 percent compared with the average manhour requirements in 1947-49. Since the 1957-59 base period,the decline has been more than 50 percent.Gains in efficiency were widespread throughout all phases of sugarcane production.

Florida

Sugarcane production in Florida has been relatively free of disease hazards, and, in more recent years, freeze damage has become less prevalent. Recurrent weed growth is a problem because sugarcane is grown largely on high nitrogen muck lands. Because of the porous nature of the soil, the heavy and recumbent growth of cane, and other factors,mechanical harvesting has not been developed. Production efficiencies have been achieved primarily through the development of new varieties of cane,improvements in tillage,drainage and cane loading equipment, weedicides, and incentives to workers as a means of improving the hand labor operation of cutting sugarcane. During the early 1960's a rapid expansion of the industry to help produce some of the sugar formerly imported from Cuba resulted in increases in the manhour requirements per ton of sugar produced, but by mid 1960's the trend of declining manhour requirements was resumed as the newer farmers gained experience. Manhour requirements in 1969 were about 30 percent of the 1947-49 average and about 80 percent of the 1957-59 base period. Notable reductions of manhour inputs were observed for all aspects of production since 1947-49 but because of the rapid expansion during the early 1960's the operations of preparation and

planting, harvesting and hauling in 1969 required more manhours of labor than in the 1957-59 base period.

Hawaii

Sugarcane production in Hawaii, generally, has not been subject to natural hazards except drought and on the island of Hawaii where excessive rainfall and volcanic action have at times adversely affected production. The major factors encouraging technological change have been the long established and extensive research program of the industry plus the high wage rates negotiated between industry and the labor union. On the other hand, several protracted strikes during the 24 years of the study have had serious impact on sugar production and efficiency. Since the Hawaiian sugar industry had adopted many labor saving practices prior to 1946, (mechanical harvesting was first introduced in 1937), the gains in productivity during the period reviewed do not fully reveal that in terms of manhour requirements this area is the most efficient sugarcane producing region in the world. Manhour requirements in 1969 were about 65 percent less than the average for the 1947-49 base period and 37 percent less than the average for 1957-59.In the 1947-49 base period, labor requirements for sugarcane production in Hawaii were 52 percent of those for Florida, the most efficient of the other domestic cane producing areas and less than three-fourths of the requirements for producing sugar beets. Despite the fact that many opportunities for improved operations had been exploited prior to 1946, substantial reductions in manhours per ton of sugar have been achieved during most of the study.

Puerto Rico

In Puerto Rico, sugarcane production has been influenced by drought, hurricane, problems of adapting mechanization to local conditions and terrain, a reduction in the harvesting labor supply due to the migration of workers to the mainland and expanded opportunities in local industry, construction and tourism, restrictions by labor unions on the use of certain labor saving practices. Also, there has been less emphasis on research than in the other domestic areas,and to some extent by the competition of industry and urban development for cane land.

During recent years the labor unions appear to have modified their earlier opposition to labor saving techniques. The Commonwealth Government has instituted subsidy and credit programs designed to improve sugarcane production efficiency. Manhour requirements per ton of sugar in Puerto Rico reached their lowest level in 1967 when they were about 40 percent below the 1947-49 average and nearly 15 percent below the 1957-59 base period, but alternate drought and heavy rains in years since -- together with the cumulative effect of the adverse conditions noted above -- have resulted in a sharply reduced production of sugar and increases in the inputs of labor.

The most significant reduction in manhours has occurred in planting and cultivation work as a result of better mechanical weed control, the increased use of weedicides, and in some instances by decreasing the emphasis on certain operations. Labor requirements prior to cutting the cane, which are higher than in any other area, were reduced 45 percent below 1947-49 in the 1957-59 period. In 1967-69 they averaged 60 percent below 1947-49 and 27 percent below 1957-59. Much of the sugarcane is cut by hand and some is loaded by hand although many large operations utilize mechanical loaders. The harvesting operation since 1960 has accounted for nearly 50 percent of the total manhour requirements, compared with Hawaii where it amounts to less than 20 percent, and Louisiana where it is less than 25 percent of the total manhour requirements. In contrast, both of these areas have resorted to complete mechanical harvesting of the sugarcane crop. As in all of the domestic areas, the variability in manhour requirements is extensive and there are some farms in Puerto Rico which rank well in terms of efficiency.

Sugarbeet area

The sugarbeet area long had been characterized as requiring large amounts of "stoop" labor. Shortages of hand workers during World War II encouraged the development of mechanical harvesters, but it was not until the early 1950's that the crop was predominantly machine harvested. Now all sugarbeets are harvested by machine.

In the mid-1940's, multiple-germ "whole" seed was largely replaced by "processed" segmented seed which reduced the number of beet seedlings. "Mono- germ" seed was introduced commercially in one region in 1957 and now is used almost exclusively in all areas.

The idea of machine thinning of sugarbeets was generally accepted in the late 1940's, and by 1960 it was estimated that almost 45 percent of the acreage was either partially or completely machine thinned. The use of mechanical thinners declined somewhat in the early 1960's but with the curtailment of imported farm workers from Mexico and efforts by beet processing companies to terminate or reduce their programs of providing workers for their growers and the development of more selective electronic thinners, producers are reassessing the value of these machines. In the 1947-49 period, cultivation of sugarbeets accounted for about 44 percent of the total manhours of field labor used in the production of sugarbeets, compared with 55 percent in 1957-59 and more than 60 percent in 1969. The greater rate of progress made in other phases of the production operation were achieved through the use of more efficient machines and implements, improved cultural practices, and the use of weedicides. In 1969, manhours of labor per ton of sugar had declined about 55 percent from the average for the 1947-49 base and about 22 percent from the 1957-59 base period. The most substantial decline was in harvesting.

Influence of labor productivity on production inputs

Changes in labor productivity are reflected in, result from, or have an impact upon, the mix of total inputs, land, labor and capital. Expenditures for research, machinery, equipment and other items must be made to achieve desired labor savings. Additional land, on a purchase or rental basis, often must be committed to the cane or beet enterprise if the unit is not of sufficient size to utilize equipment economically. Where mechanization is an important factor in productivity, current expenditures are diverted from hand labor costs to fuels, repairs and maintenance, and other related costs of operating machines. Further, as machines become more complex, e.g.,electronic thinners, it becomes necessary to substitute higher cost commercial repair and maintenance services for on-farm repair shop services.Other direct crop costs such as fertilizers, weedicides, and pesticides become more important in the cost structure. So-called fixed costs -- taxes, interest, and especially depreciation -- increase. The number of workers employed usually declines and the reduced labor force contains a larger percentage of skilled workers.

Productivity and Research

Programs of agricultural research have accounted for much of the improvement in productivity in sugar crops. The objectives of these programs differ greatly among the areas, the emphasis depending on the urgency of the problems and availability of funds and technicians.

Since World War II research activities have been stimulated by the necessity of finding ways to obtain more output per unit of input. Many projects were directed toward an immediate production problem, while others have longer-run objectives to achieve greater productivity through more effective use of labor, capital, and management.

Federal, State and Commonwealth governments support sugar crops research as do private sources such as processors, growers'associations and manufacturers of farm machinery and fertilizers. Recently, the Commonwealth government of Puerto Rico decided to embark on a program of research and assistance to the Puerto Rican sugar industry in an effort to halt and then reverse declining production. Plans are to spend up to $100,000,000 over a five year period which started in January of 1970. In Hawaii, where the industry's own research program has been most extensive, results have been notable.

One of the important phases of research has been the breeding of new varieties of sugarcane and sugarbeet seed, which is carried on continuously. In those areas where there has been a progressive replacement of older and less desirable varieties, yields of sugar per acre have increased.

Productivity and farm size

The area of sugarbeets and sugarcane harvested per farm in the domestic areas averaged 35 acres in 1957-59, figure 3. In 1969, the average per farm was 80 acres, or an increase of almost 130 percent, or 45 acres per farm. The average for the 1947-49 period was 28 acres per farm and the increase to 1969 was about 185 percent or 52 acres per farm.

Average acreage per farm in the sugarbeet area increased 129 percent above the 1957-59 base period, from 35.4 acres to 81.1 acres; in Louisiana 79 percent, from 77.8 acres to 139.4 acres; in Hawaii 62 percent from 132.8 acres to 214.5 acres; and in Puerto Rico 34 percent, from 20.6 acres to 27.6 acres. Acreage of sugarcane harvested in Florida in 1969 was down 37 percent from the base period or from 1,830 acres per farm in 1957-59 to 1,146 acres in 1969. The data for Florida reflect the sharp increase in acreage which occurred in the early 1960's along with a greater increase in the number of producers which resulted in a decline in the acreage of sugarcane harvested per farm.

Quite generally there has been a reduction in manhours and, over the long term, a trend toward increased sugar production per acre as the size of the sugarcane and sugarbeet operation increased. Even in Puerto Rico the trend of labor productivity was upward until 1967 despite a declining trend in total harvested acres, sugar production and yield per harvested acre.

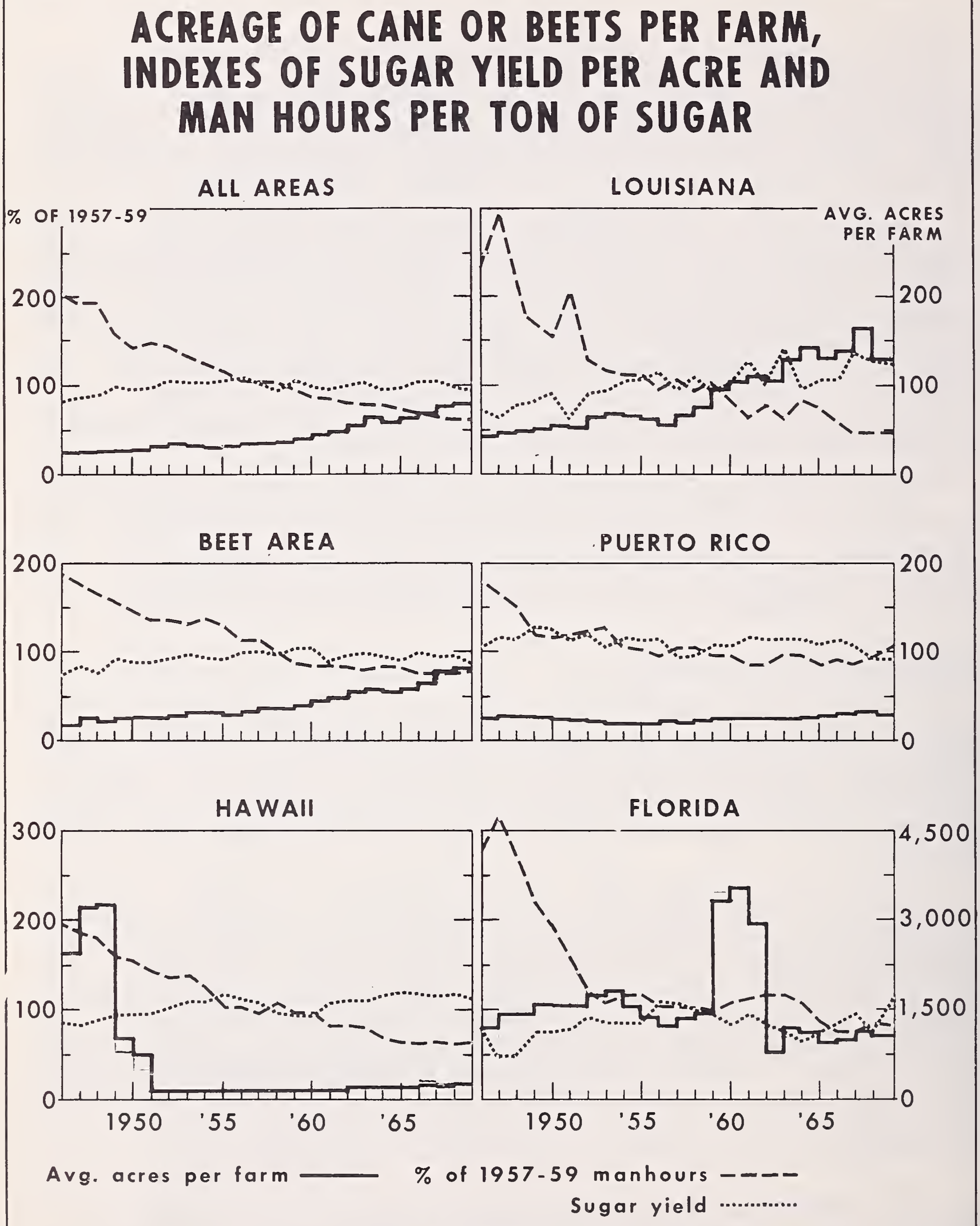
ACREAGE OF CANE OR BEETS PER FARM, INDEXES OF SUGAR YIELD PER ACRE AND MAN HOURS PER TON OF SUGAR
ALL AREAS
LOUISIANA
% OF 1957-59
AVG. ACRES PER FARM
200
100
0
BEET AREA
PUERTO RICO
200
100
0
HAWAII
FLORIDA
300
200
100
0
4,500
3,000
1,500
0
1950
'55
'60
'65
Avg. acres per farm
% of 1957-59 manhours
Sugar yield

FIGURE III

Productivity and Peak Employment

The peak number of persons working on sugarbeet and sugarcane farms in the domestic sugar producing areas declined from 334,000 in 1950 to 151,000 in 1969, a decrease of 55 percent.Work is more seasonal in some areas than others, e.g., in Hawaii cultivation and harvesting are conducted year around, while in Louisiana and Florida the peak numbers of workers occurs during the harvesting season. Aggregate man-hours used for production in all areas decreased 47 percent during the same period. The greatest decline in peak number of persons working on sugar producing farms occurred in Puerto Rico--74 percent. Much of this decline was brought about by the sharp decline in sugar production since 1962. The area with the next highest decline in the peak numbers of persons working on farms was Louisiana down 57 percent followed by Hawaii with a decline of 50 percent and the beet sugar area with a decline of 40 percent. The numbers of workers on sugarcane farms in Florida in 1969 was 240 percent above the number so employed in 1950. The sharp increase resulted from the greatly expanded production after 1960.

These data do not afford the basis for an appraisal in each area of the shift in skills of the work force nor the trends in weekly or annual employment. Collateral information indicates, however, that the skills of workers and the period of employment have increased in most areas during the past decade.

Productivity and Labor Costs

Average farm labor costs for producing a ton of sugar in current dollars in 1957-59 declined 10 percent from 1947-49, and by 1967-69 had increased 13 percent above 1957-59 to two percent above the 1947-49 average. Average manhours of labor inputs of fieldworkers declined 45 percent from the 1947-49 period to 1957-59, and in 1967-69 averaged 38 percent below the 1957-59 period and 66 percent below 1947-49. Average hourly earnings of sugarbeet and sugarcane fieldworkers increased 63 percent in current dollars from 1947-49 to 1957-59, and an additional 83 percent from 1957-59 to 1967-69. In the 1967-69 period, average hourly earnings of fieldworkers, including fringe benefits, were 297 percent of the 1947-49 average. Comparisons for each of the producing areas are shown in Table 2.

During the period of the study the Consumer Price Index,(all items) in the 1967-69 period averaged 23 percent above 1957-59 and 49 percent above the 1947-49 period. In other words, the dollars spent in the 1967-69 period purchased 23 percent less than in the 1957-59 period

Table 2.-Farm labor costs, manhours per ton of sugar, and hourly earnings of fieldworkers, averages, 1947-49, 1957-59 and 1967-69

Area	1947-49	1957-59	1967-69	Change 47-49 to 57-59	Change 57-59 to 67-69	Change 47-49 to 67-69
			Labor costs per ton of sugar 1/			
Louisiana	$49.50	$38.06	$40.18	-23%	+6%	-19%
Florida	39.79	23.95	36.40	-40%	+52%	-9%
Hawaii	31.87	36.61	42.74	+15%	+17%	+34%
Puerto Rico	47.23	52.25	69.46	+11%	+33%	+47%
Sugarbeets	34.48	26.96	33.07	-22%	+23%	-4%
All areas combined	$39.00	$35.10	$39.72	-10%	+13%	+2%
			Manhours per ton of sugar			
Louisiana	115.29	50.44	23.90	-56%	-53%	-79%
Florida	57.34	21.75	17.37	-62%	-20%	-70%
Hawaii	29.63	17.03	10.72	-43%	-37%	-64%
Puerto Rico	132.89	92.70	86.61	-30%	-7%	-35%
Sugarbeets	41.01	24.49	18.65	-40%	-24%	-55%
All areas combined	71.68	39.63	24.56	-45%	-38%	-66%
			Average hourly earnings of fieldworkers 1/			
Louisiana	$ .429	$ .755	$1.681	+76%	+123%	+292%
Florida	.694	1.101	2.096	+59%	+90%	+202%
Hawaii	1.076	2.149	3.987	+100%	+86%	+271%
Puerto Rico	.355	.564	.802	+59%	+42%	+126%
Sugarbeets	.841	1.101	1.773	+31%	+61%	+111%
All areas combined	.544	.885	1.617	+63%	+83%	+197%

1/ Includes fringe benefits Of such items as bonus and vacation pay, sick pay, retirement and pensions, village facilities, payroll taxes and insurance and compensation insurance.

and 49 percent less than in the 1947-49 period. In terms of the 1947-49 base period, real wages in the 1967-69 period had increased 99 percent, Table 3.

Raw and refined sugar prices

The price quotation for raw sugar, duty paid and delivered at New York, as quoted on the New York Coffee and Sugar Exchange, averaged 5.85 cents per pound during 1947-49 compared with 6.21 cents in 1957-59 and 7.52 cents in 1967-69. The quotations averaged six percent higher in 1957-59 than in 1947-49 and 29 percent higher in 1967-69. In constant 1947-49 dollar terms, both the 1957-59 and 1967-69 duty paid New York price quotations averaged 5.05 cents per pound or 14 percent less than the average for the 1947-49 period.

The U.S. retail price for refined sugar sold in 5-pound paper bags averaged 9.53 cents per pound in the 1947-49 period, 11.24 cents in 1957-59 and 12.26 cents in 1967-69. This was an increase, in current dollars of 18 percent from 1947-49 to 1957-59 and an increase of 29 percent from 1947-49 to 1967-69. In constant 1947-49 dollars, the 1957-59 average retail price was 9.14 cents per pound, or four percent less than in 1947-49 while the 1967-69 average of 8.23 cents per pound was 14 percent less than in the 1947-49 period.

Observations

The data analyzed in this study indicate that technological improvements on domestic cane and beet sugar farms have been an important source of benefits to workers through increased earnings per hour. Such gains have provided producers with a margin of savings in labor costs to defray, in whole or in part, added costs for non-labor inputs and amortization of capital outlays for production facilities both of which were essential to the attainment of improved labor productivity. Improved productivity in most of the producing regions has enabled producers to cope with the greater impact of inflation on their production costs than its impact on their revenues.

The data indicate that in Hawaii, where basic fieldworker wage rates are much higher than in any other area, efficiency of sugar production from the standpoint of farm labor inputs has also been much higher. Associated with the high level of wage rates are the highest yield of sugar per acre, the lowest level of manhour inputs of farm labor per ton of sugar of all the domestic producing areas, and since 1960 the highest percentage of sucrose in sugarcane of all the domestic cane sugar producing areas. Even though this area had the highest yield of sugar per acre, the long term trend of yields of

Table 3.-Comparison of average hourly earnings of fieldworkers and price of raw and refined sugar per pound, 1947-49, 1957-59 and 1967-69 in current dollars and in constant 1947-49 dollars.

Area	1947-49 actual $	1957-59 actual $	1957-59 1947-49 $ 1/	change 2/ 1947-49 to 1957-59	1967-69 Actual $	1967-69 1947-49 $ 1/	Change 2/ 1947-49 to 1967-69
			Average hourly earnings of fieldworkers				
Louisiana	$.429	$ .755	$ .614	+43%	$1.681	$1.128	+163 %
Florida	.694	1.101	.895	+ 29%	2.096	1.407	+103%
Hawaii	1.076	2.149	1.747	+62%	3.987	2.676	+149%
Puerto Rico	.355	.564	.459	+29%	.802	.538	+ 52%
Sugarbeets	.841	1.101	.895	+ 6%	1.773	1.190	+ 41%
All areas combined	.544	.885	.720	+32%	1.617	1.085	+99%
			SUGAR PRICES				
Raw sugar 3/ cents per pound	5.85	6.21	5.05	-14%	7.52	5.05	-14%
Refined sugar 4/ cents per pound	9.53	11.24	9.14	-4%	12.26	8.23	-14%

1/ Deflated by Consumer Price Index, which in 1957-59 averaged 23 percent above 1947-49 and in 1967-69 averaged 49 percent above 1947-49.

2/ In constant 1947-49 dollars.

3/ Quoted price, duty paid and delivered in New York.

4/ In 5-pound paper bags, U.S. average at retail.

sugar per harvested acre shows them to have the second highest increase in yields of sugar per harvested acre.

In Puerto Rico, where manhours of farm labor used to produce a ton of sugar have exceeded the average for all domestic areas combined, including Puerto Rico, by 85 percent in the 1947-49 period, 134 percent in the 1957-59 period and 253 percent in 1967-69,gains in productivity comparable to those of the other domestic producing areas have not been achieved. In association with this trend, Puerto Rico has experienced declining trends in total sugar production, total harvested acres, yield per harvested acre, percent sucrose in sugarcane and the percent of sucrose recovered from sugarcane. All of the other domestic sugar producing areas had increasing trends in the production of sugar, total harvested acres and yields of sugar per harvested acre, Table 4.

Many factors are related to and affect the productivity and cost of labor in any industry, some are measurable and some are not.Farm labor is no exception. In fact, its productivity is more affected by unmeasurable factors than many other types of work. Weather, growing conditions, disease, attitudes of employers toward workers and workers' attitudes toward their work are a few of the either unpredictable or unmeasurable factors that can seriously affect labor productivity of field workers in the sugar industry. The factors considered in this study were those that can be measured to a degree, although some of the unmeasurable factors have been alluded to in passing.

Table 4 shows the 24-year trends of nine components analysed in this study to determine their effect on farm labor productivity in the production of cane and beet sugar. Trends of the series of data have been used to deemphasize the fluctuations brought about by unusual conditions from year to year and which affect one area or another in almost every year.

Considering the 24-year trends (1957-59=100) for all of the domestic cane and beet sugar producing areas combined, of the 10 elements analysed all except two trended in the direction that would be expected for a healthy, growing industry. Declining trends for the percent of sucrose in cane or beets, and the percent of sucrose recovered from cane or beets are components that bear watching as they can have a serious effect on labor productivity and so on the health of the industry.

The data indicate that the index of percent of sucrose in beets and cane, as measured in tests to determine the value of sugarcane and sugarbeets, has trended downward .12 percent per year during the 24 years since 1946. There are undoubtedly good explanations for this decline but in the final analysis it should be halted and preferably reversed to maintain a healthy industry. The downward trend in the percent of sucrose recovered from cane and beets which is related to the

Table 4. Comparison of trends of indexes of factors affecting farm labor productivity in the production of sugar from sugarbeets and sugarcane, 1946-69, indexes 1957-59=100

Factors	Louisiana	Florida	Hawaii	Puerto Rico	Sugar beet	All areas
	Average annual rate of change in indexes					
Productivity of labor	+7.20	+3.58	+5.23	+2.07	+3.88	+5.12
Sugar production	+3.17	+17.44	+1.67	-2.10	+3.70	+2.47
Total harv. acres	+ .40	+20.66	+.39	-1.48	+3.47	+2.19
Acres harv. per farm	+6.78	- .33	-64.01	+1.27	+6.78	+6.31
Yield of sugar per harv.acre	+2.38	+ .81	+1.18	- .63	+ .50	+ .35
Manhours per ton of sugar	-8.38	- 7.67	-5.72	-2.79	-4.88	-5.98
Percent sucrose in cane or beets	+.31	+ .14	-.16	- .74	- .19	- .12
Percent recovery of sucrose in cane and beets	+.74	+ .54	-.26	-1.19	- .50	- .27
Labor cost per ton of sugar 1/	-.51	+ .18	+1.35	+1.98	- .93	- .09
Average hourly earnings of labor 1/	+7.70	+ 5.74	+6.46	+3.90	+3.69	+5.48

1/ Includes fringe benefits of such items as bonus and vacation pay, sick pay, retirement and pensions, village facilities, payroll taxes and insurance and compensation insurance.

percent sucrose contained in the raw material would be expected to decline slightly with the available sucrose in cane and beets but it has been declining at a faster rate-- .27 percent per year. This could indicate several things: a change in quality of cane or beets beyond that reflected by sucrose content, a change in the economics of extracting sugar versus molasses or some change in the efficiency of the sucrose extracting equipment.

Offsetting the declining trends in sucrose and its recovery were the increasing trends in total sugar production, total harvested acres of cane and beets, the increasing average size of the sugar crop enterprises, as indicated by the increase in acres of cane and beets harvested per farm and the yield of sugar crops and of sugar per harvested acre. These increasing trends, during the 24-year period of the study have been sufficient in association with improvement in the arts to reduce the manhours of farm labor required to produce a ton of sugar, or increase the productivity of farm labor, and reduce slightly the farm labor costs per ton of sugar produced. This latter has been achieved even though there was a relatively strong increase in the trend of average hourly earnings of workers but at an increase in non-labor costs.

On an area by area basis, all producing regions had declining trends in inputs of farm labor per ton of sugar produced and hence an increase in labor productivity, but the region in which labor inputs were reduced the least and productivity increased the least-- Puerto Rico--also had declining trends in the production of sugar, total harvested acres of sugarcane and yield of sugar per harvested acre. It was in this area too that the trend in the percent sucrose in cane and its recovery declined the most during the period of the study.

In Louisiana, where labor productivity increased the most, all of the elements considered had trends that moved in the desired directions. In this producing area the trend of increase in yield of sugar per harvested acre at 2.4 percent per year was significantly above that of any other region as was the trend for percent sucrose in cane and the trend in the recovery of sucrose from cane. Average hourly earnings of farm workers in Louisiana trended upward 7.7 percent per year--the highest of all the regions--while farm labor costs of producing a ton of sugar trended downward .5 percent a year, second only to the beet sugar area where they declined .9 percent per year.

The Sugar Act of 1948, as amended, is dedicated, among other purposes, to the protection of consumers as well as those engaged in the domestic production of sugar. To achieve these purposes the producers of sugar are provided a stable climate in which to operate while consumers have been provided a product at prices which, in current dollars, averaged 29 percent higher in 1967-69 than in 1947-49. This compares with increases in the Consumer Price Index of 49 percent during the same period and in the retail price of all foods of 42 percent.

ADMINISTRATIVE ACTIONS RELATING TO 1971 SUGAR SUPPLIES

USDA Announces Approval of Additional First Quarter 1971 Raw Sugar Imports

The Department of Agriculture on Feb. 18, 1971 approved applications for the importation from 11 foreign countries of an additional 100,000 short tons, raw value, of raw sugar during the first quarter of 1971.

The importation of this quantity of sugar was authorized in Sugar Regulation 811 announced Feb. 9 (USDA 424-71). Today's allocations, made pursuant to that regulation, and applications received thereunder, were based on average importations from countries during the first quarter of the years 1968 through 1970.

The additional importations approved today together with those previously approved for the importation of raw sugar during the first quarter now total 888,135 tons. Additional raw sugar may be imported during the first quarter pursuant to a bond for refining and storage by North of Hatteras Refiners.

The quantities requested and approved for the importation of an additional 100,000 tons during the first quarter are set forth in the accompanying table along with the total quantities approved for importation for each of the first and second quarter and first half of 1971.

Country	1971 Quotas	Quantity for First Quarter Importation: Applications for Additional 100,000 Tons: Received	Approved	Total approved 1/	Previously Approved for Second quarter	Total approved for first half
		Short tons, raw value				
Philippines	1,126,020	73,023	19,794	142,769	363,788	506,557
Mexico	476,527	57,680	20,844	152,085	245,146	397,231
Dominican Republic	466,048	77,250	18,870	137,698	226,694	364,392
Brazil	466,048	57,903	19,591	146,302	158,391	304,693
Peru	371,729	20,000	10,848	79,601	60,076	139,677
Br. West Indies	164,079	3,502	3,502	28,321	62,431	90,752
Ecuador	67,811	7,222	1,123	8,096	13,548	21,644
Fr. West Indies	51,614			13,278	29,802	43,080
Argentina	57,331			28,477	19,132	47,609
Costa Rica	54,865	6,386	2,046	18,518	24,350	42,868
Nicaragua	54,865	6,784	1,040	8,596	22,590	31,186
Colombia	49,317	2,215	1,403	13,481	15,578	29,059
Guatemala	46,234			28,822	17,412	46,234
Panama	34,522	1,144	939	6,773	15,784	22,557
El Salvador	33,905			19,927	11,208	31,135
Haiti	25,892			5,000	8,116	13,116
Venezuela	23,426	2,911 2/		9,697	10,818	20,515
Br. Honduras	11,953			5,735	4,800	10,535
Bolivia	5,548			217		217
Honduras	5,548	84		5,380		5,380
Bahamas	10,000			5,000	5,000	10,000
Australia	194,965					
Republic of China	81,235			4,074	47,460	51,534
India	77,986			26	32,269	32,295
South Africa	57,406			18,291	17,472	35,763
Fiji Islands	42,784			759		759
Thailand	17,872			847		847
Mauritius	17,872					
Malagasy Republic	9,206					
Swaziland	7,041			365		365
Total	4,109,649 3/	316,104	100,000	888,135	1,411,865	2,300,000

1/ Represents 750,000 tons approved on Dec. 16, 1970 and 100,000 tons approved by this action for importation during the first quarter of 1971 plus 38,135 tons of 1971 quota sugar imported under bond in 1970. Additional first quarter importations of raw sugar are permitted pursuant to a bond for refining and storage at North of Hatteras Refiners.

2/ Requested approval of all or none.

3/ Excludes sugar quotas for domestic areas and Ireland; total quotas are 10,900,000 short tons, raw value.

First Quarter Import Limitations on Raw Sugar Increased 100,000 Tons for 1971

The U. S. Department of Agriculture announced on Feb. 9, 1971 that the first quarter limitation on total raw sugar imports has been raised by 100,000 tons to a total of about 888,000 short tons, raw value, of sugar.

The Department noted that physical deliveries of refined sugar during January (including constructive deliveries) were at a good seasonal rate. Additionally, the Louisiana crop, when processing was completed about the turn of the year, made 25,000 tons of sugar less than had been expected while new crop production in the offshore domestic areas is getting off to a slightly slower start than customary.

Approval of applications for importation of the additional 100,000 tons of sugar during the first quarter will be on the basis of priorities established in S. R. 811 for 1971 which was published in the Federal Register on Dec. 11, 1970. Applications on Form SU-3 or Form SU-8-A received on or before Feb. 17, 1971 will be regarded as having been received at the same time.

Each applicant must certify that the sugar covered by the application represents sugar in addition to that previously authorized for entry and will not affect fulfillment of existing quota set-aside agreements for the first half of 1971.

This action increases the quantity of 1971 quota sugar which may be imported before July 1 to 2.3 million tons.

OTHER ADMINISTRATIVE ACTIONS

Date announced	Nature of action
January 22, 1971	Announced that proportionate shares (acreage allotments) will not be in effect in Puerto Rico for the 1971-72 crop of sugarcane. (See Jan. 28, 1971 Federal Register).

STATISTICAL SERIES IN THIS ISSUE

HIGHLIGHTS

1. January 1971 sugar deliveries for continental U. S. consumption 727,000 short tons, raw value (preliminary) down about 317,000 tons from December 1970 and down 89,000 tons from January 1970. January-December 1970 deliveries 11,317,000 short tons, raw value, up 662,000 tons from January-December 1969. Final data for December 1970 deliveries 1,044,000 short tons, raw value - previously published preliminary as 1,043,000 tons.

2. Primary distributors' stocks January 30, 1971 were 3,019,000 short tons, raw value (preliminary), up 162,000 from a year ago, and up 235,000 tons from December 31, 1970. During January refiners' stocks decreased 174,000 tons, beet processors' stocks increased 331,000 tons, importers of direct consumption sugar stocks increased 1,000 tons, mainland cane processors' stocks increased 77,000 tons.

3. Charges to quotas January 1 to January 31, 1971 were 2,552,505 short tons, raw value, leaving a balance of 8,347,495 tons to be supplied within the 10,900,000 ton total.

4. Regionally, January-December deliveries, 1970 as compared to 1969 were up in all of the five regions: Increases -- North Central 9.0 percent, West 7.3 percent, South 4.3 percent, mid-Atlantic 4.1 percent and New England 1.6 percent.

Table 5.- Sugar supply and disposition by primary distributors, January-December 1970

(Short tons, raw value)

Item	Beet processors	Importers	Mainland cane processors 1/	Refiners: Raw	Refiners: Refined	Net total
	(1)	(2)	(3)	(4)	(5)	(6)
1. Inventory Jan. 1, 1970						
a. 1969 quota	0	9,604	0	436,299 2/	204,681 2/	650,584
b. 1970 quota and other	1,413,235	300	412,114	258,586	64,286	2,148,521
Sub-total	1,413,235	9,904	412,114	694,885	268,967	2,799,105
2. Production and movement						
a. Received as direct-consumption sugar	0	148,999	0	0	8,013	157,012
b. Produced from beets or cane	3,516,410	0	1,072,712	89,980	38,059)	
Less deliveries to refiners	0	0	1,049,978	0	0)	3,667,183 3/
c. Receipts of raws by refiners	0	0	0	7,691,416 4/	0)	
Less raws melted	0	0	0	7,653,575	0)	37,841 5/
d. Refined from raws melted	0	0	0	0	7,593,026	7,593,026
e. Adjustments	-5,329	-463	-769	-444	+3,408	-3,597
f. Sub-total	3,511,081	148,536	21,965	127,377	7,642,506	11,451,465
3. Net total supply	4,924,316	158,440	434,079	822,262	7,911,473	14,250,570
			DISPOSITION			
4. Distribuion for						
a. Quota purposes	3,576,765	147,177	60,739	15,565	7,516,791	11,317,037
b. Export	0	120	0	0	66,122	66,242
c. Livestock feed	0	7,264	0	237	52,290	59,791
d. Alcohol	0	0	0	0	23,555	23,555
Sub-total	3,576,765	154,561	60,739	15,802	7,658,758	11,466,625
5. Inventory Dec. 31,1970						
a. 1970 quota	0	3,879	0	628,973 6/	201,009	833,861
b. 1971 quota and other	1,347,551	0	373,340	177,487	51,706 6/	1,950,084
Sub-total	1,347,551	3,879	373,340	806,460	252,715	2,783,945
6. Total distribution and inventory	4,924,316	158,440	434,079	822,262	7,911,473	14,250,570

1/ Establishments that acquire no raw sugar from others for refining. Processor-refiners are included with refiners.

2/ Includes Mainland cane sugar not charged to quota: Raws, 200,002; Refined, 23,486; Total, 223,488.

3/ Production less deliveries of raw sugar to refiners.

4/ Includes 1,049,978 tons received from mainland cane processors.

5/ Receipts of raw sugar by refiners less melt.

6/ Refiners' inventories include mainland cane sugar not charged to quota: Raws, 139,487; Refined, 14,309; Total, 153,796. Importers' inventory include -0- tons for quota exempt purposes.

Table 6.-Distribution of sugar by primary distributors, January-December 1970 and 1969

Item	1970	1969	Change 1969 to 1970
	Short tons, raw value		
Continental United States			
Refiners' raw	15,802	16,765	-963
Refiners' refined	7,658,758	7,360,766	+297,992
Sub-total	7,674,560	7,377,531	+297,029
Beet processors' refined	3,576,765	3,215,577	+361,188
Importers' direct consumption	154,561	158,528	-3,967
Mainland sugarcane processors'	60,739	52,310	+8,429
Total	11,466,625	10,803,946	+662,679
For: Export	66,242	81,582	-15,340
Livestock feed	59,791	46,033	+13,758
Alcohol	23,555	21,571	+1,984
Continental consumption 1/	11,317,037	10,654,760	+662,277
Puerto Rico	125,000 2/	124,987	+ 13
Hawaii	36,202	35,054	+1,148

1/ Includes deliveries for United States military forces at home and abroad.
2/ Estimated

Table 7.- Stocks of sugar held by primary distributors in the continental United States, December 31, 1970 and 1969

Item	1970	1969	Change 1969 to 1970
	Short tons, raw value		
Refiners' raw	806,460	694,885	+111,575
Refiners' refined	252,715	268,967	-16,252
Sub-total 1/	1,059,175	963,852	+95,323
Beet processors' refined	1,347,551	1,413,235	-65,684
Importers' direct consumption	3,879	9,904	-6,025
Mainland sugarcane processors'	373,340	412,114	-38,774
Total	2,783,945	2,799,105	-15,160

1/ Included mainland cane sugar not charged to quota; 1970 - Raws, 139,487; Refined, 14,309; Total 153,796; 1969 - Raws, 200,002; refined 23,486; Total, 223,488

Table 8.- Distribution of sugar by primary distributors in the continental United States, January 1971 and 1970

Item	1971 1/	1970
	January	January
	Short tons, raw value	
Refiners	579,920	601,729
Beet processors' refined	134,890	210,819
Importers' direct consumption	5,877	8,469
Mainland sugarcane processors'	5,000 2/	5,443
Total	726,687	826,460
For: Export	n.a.	4,864
Livestock feed	n.a.	6,028
Alcohol	n.a.	279
Continental consumption 3/	726,687	815,289

1/ Preliminary. 2/ Estimated. 3/ Includes deliveries for U.S. military forces at home and abroad.

Table 9.- Stocks of sugar held by primary distributors in the continental United States, January 30, 1971 and January 31, 1970

Item	1971 1/	1970	Change 1970 to 1971
	Short tons, raw value		
Refiners' raw	619,629	505,913	+113,716
Refiners' refined	265,982	254,025	+11,957
Sub-total	885,611	759,938	+125,673
Beet processors' refined	1,679,019	1,677,168	+1,851
Importers' direct consumption	4,792	10,380	-5,588
Mainland sugarcane processors'	450,000 2/	410,358	+39,642
Total	3,019,422	2,857,844	+161,578

1/ Preliminary
2/ Estimated

Table 10- Mainland sugar: Production and quota charges
January-December 1970 and 1969

Item	1970	1969	Change 1969 to 1970
	Short tons, raw value		
Production			
Mainland cane	1,199,292	1,054,168	+145,124
Domestic beet	3,511,081	3,246,160	+264,921
Total	4,710,373	4,300,328	+410,045
Quota charges			
Mainland cane:			
Louisiana sugarcane processors			
For further processing	521,035	457,074	+63,961
For direct-consumption	11,576	12,073	-497
Louisiana processor-refiners	135,307	124,865	+10,442
Florida sugarcane processors	639,840	575,291	+64,549
Sub-total	1,307,758	1,169,303	+138,455
Beet processors	3,576,765	3,215,577	+361,188
Total	4,884,523	4,384,880	+499,643

Table 11.- Sugar receipts of refiners and importers by source of supply 1/ January-December 1970 and 1969

Source of supply	Raw sugar		Direct consumption sugar		Total	
	1970	1969	1970	1969	1970	1969
	Short tons, raw value					
OFFSHORE						
Foreign						
Argentina	79,957	41,873			79,957	41,873
Australia	210,709	192,618			210,709	192,618
Bahamas	9,790	10,209			9,790	10,209
Belgium				2,406		2,406
Bolivia	7,816	7,354			7,816	7,354
Brazil	667,003	679,271	120	106	667,123	679,377
British Honduras	15,757	16,263			15,757	16,263
British West Indies	215,218	227,636	4		215,222	227,636
Canada			4		4	
China, Republic of	86,302	80,788			86,302	80,788
Colombia	68,719	93,663	18	12	68,737	93,675
Costa Rica	75,369	70,222			75,369	70,222
Denmark			10	10	10	10
Dominican Republic	726,604	690,980			726,604	690,980
Ecuador	89,679	93,553			89,679	93,553
El Salvador	46,595	44,643			46,595	44,643
Fiji Islands	44,102	43,260			44,102	43,260
France	8,254			4,042	8,254	4,042
French West Indies	68,427	71,543			68,427	71,543
Germany, West			10	10	10	10
Guatemala	69,142	57,884			69,142	57,884
Haiti	21,636	17,419			21,636	17,419
Honduras	10,774	2,211			10,774	2,211
Hong Kong			13	46	13	46
India	78,688	78,288	5	5	78,693	78,293
Ireland			5,351	5,351	5,351	5,351
Malagasy Republic	9,671	8,872			9,671	8,872
Mauritius	18,035	17,432			18,035	17,432
Mexico	649,610	659,691		4	649,610	659,695
Netherlands			10	10	10	10
Nicaragua	76,285	70,038	1		76,286	70,038
Panama	32,942	40,826	3,812	3,194	36,754	44,020
Paraguay			10	10	10	10
Peru	454,737	301,218			454,737	301,218
Philippines	1,288,006	1,119,032	10,358	5,403	1,298,364	1,124,435
Reunion		11,491				11,491
South Africa	78,051	64,435			78,051	64,435
Swaziland	7,464	7,245			7,464	7,245
Sweden			7	6,466	7	6,466
Thailand	19,758	17,564			19,758	17,564
United Kingdom			7,013		7,013	
Venezuela	33,806	21,570			33,806	21,570
Total	5,268,906	4,859,092	26,746	27,075	5,295,652	4,886,167
Domestic						
Hawaii	1,139,131	1,155,311	8,013 2/	4,691 2/	1,147,144	1,160,002
Puerto Rico	230,858	211,751	122,253	129,955	353,111	341,706
Virgin Islands	0	0	0	0	0	0
Sub-total	1,369,989	1,367,062	130,266	134,646	1,500,255	1,501,708
Total all offshore	6,638,895	6,226,154	157,012	161,721	6,795,907	6,387,875
Mainland cane area	1,139,958	1,022,501	38,059 3/	28,221 3/	1,178,017	1,050,722
Acquired for reprocessing and samples	2,543	2,247	0	0	2,543	2,247
GRAND TOTAL	7,781,396	7,250,902	195,071	189,942	7,976,467	7,440,844

1/ Includes sugar as detailed in Table 12.

2/ Refined sugar received by refiners.

3/ Refined sugar produced direct from cane by processor - refiner.

Table 12- Receipts of quota-exempt and over-quota sugar included in Table 11

Purpose	Refiners 1970	Refiners 1969	Importers 1970	Importers 1969	Total 1970	Total 1969
	Short tons, raw value					
For export						
Argentina	1,759				1,759	
Brazil	16,035	29,004	120	106	16,155	29,110
Colombia		11,925				11,925
Dominican Republic	24,828				24,828	
El Salvador		8,334				8,334
France	8,255				8,255	
Guatemala	5,890				5,890	
Hawaii	1,013	1,354			1,013	1,354
Honduras	3,160				3,160	
Puerto Rico	785	472			785	472
Reunion		3,959				3,959
South Africa		7,587				7,587
Swaziland		81				81
Total	61,725	62,716	120	106	61,845	62,822
For livestock feed						
Australia	6,688				6,688	
Belgium				2,396		2,396
Brazil	12,797	10,540			12,797	10,540
Canada			4		4	
Colombia		6,819				6,819
Dominican Republic	12,169				12,169	
El Salvador	79	2,649			79	2,649
France				4,032		4,032
Guatemala		4,713				4,713
Honduras	9				9	
South Africa	16,539				16,539	
Sweden				6,455		6,455
United Kingdom			7,013		7,013	
Total	48,281	24,721	7,017	12,883	55,298	37,604
For alcohol						
Brazil		16,108				16,108
Colombia		5,747				5,747
Dominican Republic	9,818				9,818	
El Salvador		4,933				4,933
Total	9,818	26,788			9,818	26,788
Held pending availability of quota						
Argentina	3,925	3,807			3,925	3,807
Australia		2,249				2,249
Bahamas		209				209
Bolivia	217				217	
Brazil	4,743	5,000			4,743	5,000
British Honduras	735	759			735	759
British West Indies	948	1,674			948	1,674
China	4,060	3,717			4,060	3,717
Colombia	3,364	2,176			3,364	2,176
Costa Rica	3,757	3,581			3,757	3,581
Dominican Republic	1,589				1,589	
Ecuador		1,228				1,228
El Salvador	2,321	2,235			2,321	2,235
Fiji Islands	749	1,912			749	1,912
French West Indies	278				278	
Guatemala	2,929	2,986			2,929	2,986
Hawaii	936				936	
Honduras	380	375			380	375
India		3,800				3,800
Mauritius		184				184
Mexico	1,702	4,652			1,702	4,652
Nicaragua	1,152				1,152	
Peru	246	1,228			246	1,228
South Africa	819	42			819	42
Swaziland	365	348			365	348
Thailand	847				847	
Venezuela	1,604				1,604	
Total	37,666	42,162			37,666	42,162
In Customs custody						
Colombia			10		10	
Costa Rica	25				25	
Hong Kong			50	47	50	47
Panama			24		24	
Reunion		7,532				7,532
Sweden				2		2
Venezuela	121				121	
Total	146	7,532	84	49	230	7,581
GRAND TOTAL	157,636	163,919	7,221	13,038	164,857	176,957

Table 13.-Status of 1971 quotas and charges as of January 31, 1971

Source of supply	Quotas and prorations	Charges to quotas 1/ Set-aside	By SU-3	Total 2/3/	Balances 2/
		Short tons, raw value			
Domestic beet sugar	3,263,333			135,000	3,128,333
Mainland cane sugar	1,186,667			200,000	986,667
Hawaii	1,180,000			14,456	1,165,544
Puerto Rico	1,140,000			215	1,139,785
Virgin Islands	15,000				15,000
Total	6,785,000			349,671	6,435,329
Republic of the Philippines	1,126,020	424,908 4/	64,273	489,181	636,839
Argentina	57,331	43,684	3,925	47,609	9,722
Australia	194,965				194,965
Bahamas	10,000	8,222	1,778	10,000	
Bolivia	5,548		217	217	5,331
Brazil	466,048	175,979	108,866	284,845	181,203
British Honduras	11,953	9,800	735	10,535	1,418
British West Indies	164,079	76,167	11,083	87,250	76,829
China, Republic of	81,235	47,460	4,060	51,520	29,715
Colombia	49,317	24,292	3,364	27,656	21,661
Costa Rica	54,865	32,195	8,627	40,822	14,043
Dominican Republic	466,048	283,146	62,376	345,522	120,526
Ecuador	67,811	16,165	4,356	20,521	47,290
El Salvador	33,905	23,921	7,214	31,135	2,770
Fiji Islands	42,784		749	749	42,035
French West Indies	51,614	37,837	5,243	43,080	8,534
Guatemala	46,234	31,367	14,867	46,234	
Haiti	25,892	13,116		13,116	12,776
Honduras	5,548	5,000	380	5,380	168
India	77,986	32,269		32,269	45,717
Ireland	5,351		1,797	1,797	3,554
Malagasy Republic	9,206				9,206
Mauritius	17,872				17,872
Mexico	476,527	337,698	38,643	376,341	100,186
Nicaragua	54,865	25,133	5,074	30,207	24,658
Panama	34,522	20,526	1,116	21,642	12,880
Peru	371,729	115,549	12,167	127,716	244,013
South Africa	57,406	17,472	18,291	35,763	21,643
Swaziland	7,041		365	365	6,676
Thailand	17,872		847	847	17,025
Venezuela	23,426	18,790	1,725	20,515	2,911
Total	4,115,000	1,820,696	382,138	2,202,834	1,912,166
GRAND TOTAL	4,115,000	1,820,696	382,138	2,552,505	8,347,495

1/ Domestic beet and mainland cane sugar marketings partly estimated; all other sugar entered or authorized for entry.
2/ Direct-consumption charges and balances; Hawaii 0 and 37,278; Panama, 24 and 3,793; Philippines, 2,418 and 57,502; Puerto Rico, 215 and 163,285; Ireland, 1,797 and 3,554.
3/ Includes raw sugar for direct consumption: Hawaii, 0; Puerto Rico, 0.
4/ Represents quantity reserved for importation during the first half.

Table 14- Quota-exempt and over quota sugar authorized for entry as of January 31, 1971 1/

Country	Reexport	Feed	Alcohol	For refining under bond	Total
	Short tons, raw value				
Dominican Republic	15,009			3,807	18,816
United Kingdom		1,754			1,754
Total	15,009	1,754		3,807	20,570

1/ In addition: Under provisions of Sec. 212, 33 tons were entered as liquid sugar in small containers; 50 tons as the first ten tons;
(b) Raw sugar was brought in for refining and return to: Hawaii 0 tons; Puerto Rico 0 tons;
(c) Tons of sugar in Customs custody for subsequent entry: Hong Kong - 40

Table 15. - Primary distribution of sugar, continental United States, by States, December 1970

State and region	Cane sugar refiners	Beet sugar processors	Importers of direct-consumption sugar	Mainland cane sugar mills	Total
	Hundredweights 1/				
New England					
Connecticut	116,903		2,206		119,109
Maine	40,726		950		41,676
Massachusetts	432,164	800	1,488		434,452
New Hampshire	34,286		806		35,092
Rhode Island	38,015		404		38,419
Vermont	13,934				13,934
Sub-total	676,028	800	5,854		682,682
Mid-Atlantic					
New Jersey	800,014	2,087	52,081	4,805	858,987
New York	1,318,542	36,272	21,435	920	1,377,169
Pennsylvania	1,102,127	19,967	28,541	252	1,150,887
Sub-total	3,220,683	58,326	102,057	5,977	3,387,043
North Central					
Illinois	751,345	2,238,176	3,450	5,000	2,997,971
Indiana	349,502	206,491			555,993
Iowa	65,413	236,656			302,069
Kansas	45,882	91,611			137,493
Michigan	336,156	553,902			890,058
Minnesota	45,459	229,624			275,083
Missouri	293,884	189,654			483,538
Nebraska	16,372	167,383			183,755
North Dakota	747	29,810			30,557
Ohio	682,568	209,589			892,157
South Dakota	1,933	26,294			28,227
Wisconsin	157,250	312,093			469,343
Sub-total	2,746,511	4,491,283	3,450	5,000	7,246,244
Southern					
Alabama	191,865			2,420	194,285
Arkansas	92,997	16,626			109,623
Delaware	126,493				126,493
District of Columbia	33,284				33,284
Florida	402,853			35,062	437,915
Georgia	542,304			2,228	544,532
Kentucky	202,099				202,099
Louisiana	323,256			10,627	333,883
Maryland	400,184		15,259	-720	414,723
Mississippi	118,204			870	119,074
North Carolina	333,895		806		334,701
Oklahoma	109,619	27,735		1	137,355
South Carolina	173,571		5	389	173,965
Tennessee	310,414		460		310,874
Texas	706,292	190,958		1,098	898,348
Virginia	242,985		3,626	7,000	253,611
West Virginia	65,423	2,400			67,823
Sub-total	4,375,738	237,719	20,156	58,975	4,692,588
Western					
Alaska	612	5,315			5,927
Arizona	29,174	92,906			122,080
California	616,057	1,985,301	11,200		2,612,558
Colorado	33,876	128,643			162,519
Idaho	1,638	31,820			33,458
Montana	6,588	27,103			33,691
Nevada	6,529	6,932			13,461
New Mexico	7,838	23,138			30,976
Oregon	47,658	164,069			211,727
Utah	7,366	76,449			83,815
Washington	50,346	244,448			294,794
Wyoming	4,038	5,364			9,402
Sub-total	811,720	2,791,488	11,200		3,614,408
Grand total	11,830,680	7,579,616	142,717	69,952	19,622,965

1/ Reported as produced or imported and delivered except liquid sugar which is on a sugar solids content basis.

Table 16. - Primary distribution of sugar, continental United States, by States, January-December 1970

State and region	Cane sugar refiners	Beet sugar processors	Importers of direct-consumption sugar	Mainland cane sugar mills	Total
	Hundredweights 1/				
New England					
Connecticut	1,302,401	23,670	54,026	200	1,380,297
Maine	511,423	23,731	10,259		545,413
Massachusetts	5,145,791	149,688	72,865	1,500	5,369,844
New Hampshire	367,356	2,185	13,127		382,668
Rhode Island	383,382	31,575	33,542		448,499
Vermont	221,477	11,103			232,580
Sub-total	7,931,830	241,952	183,819	1,700	8,359,301
Mid-Atlantic					
New Jersey	9,529,735	14,025	725,363	40,767	10,309,890
New York	15,577,369	460,136	688,284	10,010	16,735,799
Pennsylvania	13,144,346	260,479	536,158	13,252	13,954,235
Sub-total	38,251,450	734,640	1,949,805	64,029	40,999,924
North Central					
Illinois	8,941,681	16,691,430	19,750	62,500	25,715,361
Indiana	4,665,389	1,586,615	3,600		6,255,604
Iowa	657,957	1,951,037			2,608,994
Kansas	540,912	1,159,385		3,030	1,703,327
Michigan	3,698,533	4,515,539		1	8,214,073
Minnesota	444,932	2,687,830			3,132,762
Missouri	3,472,302	1,927,836		5,980	5,406,118
Nebraska	234,872	1,621,856			1,856,728
North Dakota	10,918	370,485			381,403
Ohio	8,204,589	2,727,525	2,400	10,000	10,944,514
South Dakota	25,569	317,435			343,004
Wisconsin	1,729,054	2,854,699			4,583,753
Sub-total	32,626,708	38,411,672	25,750	81,511	71,145,641
Southern					
Alabama	2,628,412			20,164	2,648,576
Arkansas	1,211,372	129,621		8	1,341,001
Delaware	1,949,504		2,920		1,952,424
District of Columbia	443,969		1,000		444,969
Florida	4,549,446		400	821,790	5,371,636
Georgia	6,956,584		1,920	19,513	6,978,017
Kentucky	2,402,279	2			2,402,281
Louisiana	3,902,950			56,886	3,959,836
Maryland	5,197,231	5	276,018	5,697	5,478,951
Mississippi	1,513,860			1,425	1,515,285
North Carolina	4,132,298		20,662	99	4,153,059
Oklahoma	1,279,598	383,941		2	1,663,541
South Carolina	2,109,785		4,898	389	2,115,072
Tennessee	4,100,621	-18	2,960		4,103,563
Texas	8,680,301	1,820,647	60	47,998	10,549,006
Virginia	3,089,219		93,669	19,050	3,201,938
West Virginia	900,550	17,560	11,100		929,210
Sub-total	55,047,979	2,351,758	415,607	993,021	58,808,365
Western					
Alaska	19,688	44,443			64,131
Arizona	299,933	640,113			940,046
California	6,004,233	17,101,072	110,654		23,215,959
Colorado	267,290	1,514,425		3	1,781,718
Idaho	33,667	340,301			373,968
Montana	53,459	308,068			361,527
Nevada	67,809	63,011			130,820
New Mexico	66,466	218,009			284,475
Oregon	506,370	1,735,483	13,237		2,255,090
Utah	98,712	757,413			856,125
Washington	615,604	2,320,263	51,089		2,986,956
Wyoming	28,632	72,788			101,420
Sub-total	8,061,863	25,115,389	174,980	3	33,352,235
Grand total	141,919,830	66,855,411	2,749,961	1,140,264	212,665,466

1/ Reported as produced or imported and delivered except liquid sugar which is on a sugar solids content basis.

Table 17. - Primary distribution of sugar, continental United States, by states, January-December 1969 and 1970

State and Region	Cane sugar refiners 1970	Cane sugar refiners 1969	Beet processors 1970	Beet processors 1969	Total all Primary Distributors 1/ 1970	Total all Primary Distributors 1/ 1969
	Thousands of hundredweights 2/					
New England						
Connecticut	1,302	1,216	24	32	1,380	1,336
Maine	511	496	24	42	545	539
Massachusetts	5,146	4,983	150	235	5,370	5,280
New Hampshire	367	378	2	9	383	387
Rhode Island	383	377	31	46	448	443
Vermont	222	229	11	11	233	240
Sub-total	7,931	7,679	242	375	8,359	8,225
Mid-Atlantic						
New Jersey	9,530	8,718	14	141	10,310	9,575
New York	15,577	14,912	460	716	16,736	16,437
Pennsylvania	13,144	12,003	261	771	13,954	13,357
Sub-total	38,251	35,633	735	1,628	41,000	39,369
North Central						
Illinois	8,942	8,499	16,691	14,530	25,715	23,106
Indiana	4,665	4,119	1,587	1,651	6,256	5,780
Iowa	658	688	1,951	1,729	2,609	2,417
Kansas	541	548	1,159	1,014	1,703	1,566
Michigan	3,698	3,202	4,516	4,189	8,214	7,391
Minnesota	445	464	2,688	2,502	3,133	2,973
Missouri	3,472	3,359	1,928	1,792	5,406	5,159
Nebraska	235	168	1,622	1,563	1,857	1,733
North Dakota	11	4	370	310	381	314
Ohio	8,205	7,109	2,728	3,066	10,945	10,188
South Dakota	26	22	317	321	343	343
Wisconsin	1,729	1,523	2,855	2,787	4,584	4,310
Sub-total	32,627	29,705	38,412	35,454	71,146	65,280
Southern						
Alabama	2,629	2,652			2,649	2,665
Arkansas	1,211	1,151	130	125	1,341	1,276
Delaware	1,949	1,805		39	1,952	1,847
District of Columbia	444	415		4	445	421
Florida	4,549	3,998			5,372	4,767
Georgia	6,957	7,020			6,978	7,040
Kentucky	2,402	2,322	*	58	2,402	2,380
Louisiana	3,903	3,920			3,960	3,967
Maryland	5,197	4,610		48	5,479	4,914
Mississippi	1,514	1,488			1,515	1,488
North Carolina	4,132	4,109			4,153	4,122
Oklahoma	1,280	1,231	384	455	1,664	1,688
South Carolina	2,110	1,868			2,115	1,868
Tennessee	4,101	4,045	*	6	4,103	4,054
Texas	8,680	7,223	1,821	2,649	10,549	9,922
Virginia	3,089	3,016		21	3,202	3,087
West Virginia	901	856	17	15	929	877
Sub-total	55,048	51,729	2,352	3,420	58,808	56,383
Western						
Alaska	20	34	44	30	64	64
Arizona	300	378	640	392	940	770
California	6,004	9,183	17,101	12,426	23,216	21,657
Colorado	267	290	1,515	1,363	1,782	1,653
Idaho	34	44	340	345	374	389
Montana	53	43	308	286	362	329
Nevada	68	103	63	39	131	142
New Mexico	66	76	218	185	284	261
Oregon	506	706	1,736	1,478	2,255	2,192
Utah	99	101	757	705	856	806
Washington	616	793	2,320	1,900	2,987	2,739
Wyoming	29	12	73	78	102	90
Sub-total	8,062	11,763	25,115	19,227	33,353	31,092
Grand total	141,919	136,509	66,856	60,104	212,666	200,349

1/ Includes deliveries by importers of direct-consumption sugar and mainland cane sugar mills.
2/ Reported as produced or imported and delivered except liquid sugar which is on a sugar solids content basis.
* Less than 500 hundredweights.

Table 18-Sugar prices

Period	Raw cane sugar-spot price: Domestic sugar at NY: duty paid 1/	Raw cane sugar-spot price: "World" sugar 2/	Quota premium and discount	Refined beet sugar quoted wholesale (gross) 4/: Eastern	Refined beet sugar quoted wholesale (gross) 4/: Chicago-West	Refined beet sugar quoted wholesale (gross) 4/: Pacific Coast
		Cents per pound				
1966-70 Monthly average	7.52	2.59	+3.93	10.08	10.08	10.19
1969 " "	7.75	3.37	+3.38	10.23	10.23	10.14
1970 Monthly average	8.07	3.75	+3.19	11.08	11.08	10.79
1970						
February	7.96	3.23	+3.61	10.58	10.58	10.50
March	7.90	3.44	+3.34	10.85	10.85	10.50
April	7.90	3.62	+3.16	10.85	10.85	10.50
May	8.16	3.75	+3.26	10.85	10.85	10.70
June	8.22	3.82	+3.25	11.20	11.20	10.70
July	8.16	3.86	+3.15	11.20	11.20	10.70
August	8.19	3.89	+3.15	11.20	11.20	10.70
September	8.16	3.93	+3.08	11.35	11.35	11.20
October	8.14	3.99	+3.00	11.45	11.45	11.20
November	7.96	4.18	+2.63	11.45	11.45	11.20
December	8.02	4.16	+2.71	11.45	11.45	11.20
1971						
January	8,35	4.73	+2.42	11.52	11.52	11.20
Last 12-month average	8.09	3.88	+3.06	11.16	11.16	10.86

Year and month	Refined cane sugar - quoted wholesale (gross) 4/: North East	South East	Gulf	Chicago-West	Pacific Coast	Retail U.S. average
		Cents per pound				
1966-70 Monthly average	11.05	10.61	10.42	10.14	10.19	12.36
1969 Monthly average	11.44	10.85	10.50	10.23	10.14	12.40
1970 Monthly average	11.97	11.41	11.04	11.08	10.79	12.97
1970						
February	11.70	11.20	10.87	10.58	10.50	12.58
March	11.70	11.20	10.90	10.85	10.50	12.70
April	11.70	11.20	10.90	10.85	10.50	12.76
May	11.88	11.20	10.90	10.85	10.70	12.84
June	12.05	11.43	11.15	11.20	10.70	12.92
July	12.05	11.50	11.15	11.20	10.70	13.04
August	12.05	11.50	11.15	11.20	10.70	13.12
September	12.20	11.65	11.15	11.35	11.20	13.16
October	12.20	11.65	11.15	11.45	11.20	13.22
November	12.20	11.65	11.15	11.45	11.20	13.34
December	12.20	11.65	11.15	11.45	11.20	13.40
1971						
January	12.20	11.76	11.30	11.52	11.20	13.40
Last 12-month average	12.01	11.47	11.08	11.16	10.86	13.04

1/ Spot prices are for bulk sugar under Contract No. 10 which, beginning November 21, 1966, replaces Contract No. 7. The terms of these contracts are duty paid or duty free, full duty rate .625 cent per pound.

2/ Spot prices are for bulk sugar under Contract No. 11 which, beginning Jan. 1, 1971, replaces Contract No. 8. The terms of these contracts are f.o.b. and stowed at Greater Caribbean ports, including Brazil.

3/ The No. 10 "Domestic Bulk" Contract has been adjusted by deducting duty (.625¢), computed freight from the Greater Caribbean ports (including Brazil), insurance and unloading charges before calculating the differential from the "World" Contract spot prices.

4/ These are basis prices in 100-pound paper bags, NOT delivered prices. To obtain delivered prices add "Freight Prepays" and deduct discounts and allowances. For illustration see Sugar Reports No. 81, January 1959, pages 5 to 9.

Table 19.- Wholesale price quotations for sugar, dextrose and corn sirup

Period	Refined sugar wholesale north-east 1/	Dextrose New York 2/		Corn sirup New York 3/		Dextrose relative to refined sugar		Corn sirup relative to refined sugar	
		Quoted	Dry basis 4/	Quoted	Dry basis 4/	Quoted	Dry basis	Quoted	Dry basis
	Cents per pound					Percent			
1952	8.62	7.29	7.92	7.37	9.18	85	92	85	106
1953	8.72	7.35	7.99	7.32	9.12	84	92	84	105
1954	8.72	7.32	7.96	7.32	9.12	84	91	84	105
1955	8.59	7.22	7.85	7.25	9.03	84	91	84	105
1956	8.77	7.28	7.91	7.15	8.90	83	90	82	101
Average 1952-56	8.68	7.29	7.93	7.28	9.07	84	91	84	104
1957	9.15	7.65	8.32	7.36	9.17	84	91	80	100
1958	9.27	7.66	8.33	7.37	9.18	83	90	80	99
1959	9.33	7.48	8.13	7.31	9.10	80	87	78	98
1960	9.43	7.48	8.13	7.32	9.12	79	86	78	97
1961	9.40	7.45	8.10	7.23	9.00	79	86	77	96
Average 1957-61	9.32	7.54	8.20	7.32	9.11	81	88	79	98
1962	9.60	7.40	8.04	7.01	8.73	77	84	73	91
1963	11.94	8.37	9.10	7.38	9.19	70	76	62	77
1964	10.68	8.14	8.85	6.71	8.36	76	83	63	78
1965	10.22	8.00	8.70	6.64	8.27	78	85	65	81
1966	10.36	8.16	8.87	6.70	8.34	79	86	65	81
Average 1962-66	10.56	8.01	8.71	6.89	8.58	76	82	65	81
1967	10.62	8.37	9.10	6.75	8.40	79	86	64	79
1968	10.84	8.53	9.27	6.31	7.85	79	86	58	72
1969	11.44	8.98	9.77	6.26	7.80	78	85	55	68
1970	11.97	9.38	10.20	6.79	8.45	78	85	55	
1970									
February	11.70	9.17	9.97	6.50	8.09	78	85	56	69
March	11.70	9.24	10.04	6.50	8.09	79	86	56	69
April	11.70	9.24	10.04	6.50	8.09	79	86	56	69
May	11.88	9.24	10.04	6.50	8.09	78	85	55	68
June	12.05	9.24	10.04	6.50	8.09	77	83	54	67
July	12.05	9.41	10.23	6.54	8.14	78	85	54	68
August	12.05	9.52	10.35	6.90	8.59	79	86	57	71
September	12.20	9.52	10.35	7.26	9.04	78	85	60	74
October	12.20	9.61	10.45	7.26	9.04	79	86	60	74
November	12.20	9.64	10.48	7.26	9.04	79	86	60	74
December	12.20	9.61	10.45	7.26	9.04	79	86	60	74
1971									
January	12.20	9.64	10.48	7.26	9.04	79	86	60	74
Last 12-month average	12.01	9.42	10.24	6.85	8.53	78	85	57	71

1/ Gross basis price in 100-pound bags subject to a 2 percent cash discount.

2/ Hydrate, commercial bags less than carlots, ex whse., N.Y., N.Y. Beginning April 1964, price is for 600 bag carload f.o.b. N.Y.

3/ For regular conversion sirup (38-49 D.E.) in tank cars New York, N.Y., except prior to April 1964 price quotation is for corn sirup in drums. Quoted as 43° Baume unmixed, except prior to March 1956 quotation is for 42° Baume unmixed.

4/ Assumes price is for 92 percent solids for dextrose and 80.3 percent solids for corn sirup. Thus dry basis price is quoted price divided by 0.92 for dextrose and 0.803 for corn sirup.

Table 20.- Refined sugar production and month-end stocks

Year and month	Production: Cane sugar refiners	Production: Beet processors	Month-end stocks 1/: Cane sugar refiners	Month-end stocks 1/: Beet processors
	1,000 short tons, raw value			
1965-69 monthly average	606	248	274	1,186
1968 monthly average	642	253	293	1,042
1969 monthly average	613	270	278	1,217
1970				
February	529	290	264	1,707
March	637	132	264	1,553
April	658	151	309	1,455
May	707	129	332	1,338
June	614	73	253	1,076
July	629	111	225	842
August	662	117	220	557
September	691	140	215	324
October	673	614	217	696
November	616	683	245	1,157
December	642 2/	596	253 2/	1,348
January 3/	595	466	266	1,679
Last 12-month average	638	292	255	1,144

1/ Includes over-quota and quota exempt.

2/ Revised

3/ Preliminary

Supplement to SUGAR STATISTICS, Volume II, Domestic Sugarbeet Area

This supplement brings to date Statistical Bulletin No. 244, "Sugar Statistics and Related Data," Volume II (revised), issued February 1969 as it relates to the Domestic Sugarbeet Area.

Some readers may want to transcribe the data appearing in this supplement to the tables in that bulletin. A cross- reference of the tables in this supplement to the corresponding tables in Volume II is shown below.

Copies of Statistical Bulletin NO. 244 may be obtained upon request to the Information Division, Agricultural Stabilization and Conservation Service, U. S. Department of Agriculture, Washington, D.C. 20250.

Table and page			Table and page			Table and page		
Table in Vol.II	Herein		Table in Vol.II	Herein		Table in Vol.II	Herein	
	Table	Page		Table	Page		Table	Page
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4	B	45	10	H	46	16	I	47
5	C	45	11	I	47	17	J	48
6	D	45	12	I	47	18	K	48-49
7	E	45	13	I	47	19	L	50
8	F	46	14	I	47			

Supplement to Sugar Statistics, Volume II (Revised February 1969)
Agricultural, Manufacturing, Payment and Income Data for the
Domestic Sugarbeet Area, 1968, revised and 1969 crops

A. Beet sugar production, United States 1/ (Table 3)

Crop year	Refined 1,000 cwts.	Raw value equivalent 1,000 tons
1968	65,225	3,490
1969	62,872	3,364

1/ Gross production, excludes adjustment for losses of sugar from hauling, storage, conversion to liquid sugar, etc., prior to marketing.

B. Number of beet sugar factories in existence and operating 1/ (Table 4)

Year	In existence	Operating
1968	61	59
1969	61	59

1/ One factory beginning 1926 produces sugar from beet molasses but not directly from beets.

C. Farms, acreage, production and yield, U.S. sugarbeet area (Table 5)

Crop year	Farms	Planted acres: Per farm	Planted acres: Total	Harvested acres	Sugarbeets produced	Yield per acre: Planted	Yield per acre: Harvested
	Number	Acres	1,000 acres		1,000 tons	Tons	
1968	18,452	81.8	1,509	1,442	25,670	17.0	17.8
1969	18,424	88.1	1,624	1,524	27,860	17.2	18.3

D. Sugarbeets received and processed, sugar production and rate of sugar produced, United States, (Table 6)

Crop year	Sugarbeets received for processing: Total received	Sugarbeets received for processing: Sucrose content 1/	Sugarbeets processed: Total sliced	Sugarbeets processed: Sucrose in cossettes	Beet sugar produced: Total 2/ refined	Per ton of beets: Received	Per ton of beets: Sliced	Percent total sugar in beets: Received	Percent total sugar in beets: Sliced
	1,000 tons	Percent	1,000 tons	Percent	1,000 cwt.	Pounds refined		Percent	
1968	25,670	15.61	25,670	15.21	65,225	254	254	81.36	83.50
1969	27,853	14.85	27,186	14.36	62,872	226	231	76.09	80.43

1/ Represents the weighted average sucrose content upon which payments to producers are based in accordance with the terms of purchase contracts - either sucrose content of cossettes (sliced sugarbeets) or sucrose content of sugarbeets at time of delivery to processors weighted by the appropriate tonnages.

2/ Gross production. Excludes adjustment for losses of sugar from handling, storage, conversion to liquid sugar, etc., prior to marketing.

E. Sugar Act payments to beet growers, United States (Table 7)

Crop year	Producer-payees	Payments 1/: For sugarbeets marketed	Payments 1/: For acreage abandonment due to disaster	Payments 1/: For deficiency in yields	Payments 1/: Total	Average payment: Per farm	Average payment: Per cwt. refined sugar
	Number	Dollars					
1968	31,872	55,268,249	558,466	938,238	56,764,953	3,076	.87
1969	32,514	57,481,074	990,668	1,515,838	59,987,580	3,356	.95

1/ Based on sugar commercially recoverable determined in accordance with the effective determinations issued pursuant to the Sugar Act.

F. Returns from sugar and beets, United States (Table 8)

Crop year	Processors' net returns from sale of beet sugar 1/	Growers returns from sugarbeets		
		Processor payments 2/	Sugar Act payments 3/	Total
		1,000 dollars		
1968	558,978	351,679	56,765	408,444
1969 4/	560,190	357,075	59,988	417,063

1/ Net returns per cwt. of beet sugar (Table 9, Vol. II) multiplied by sugar production (TAble 3, Vol. II).

2/ Processor payment per ton of sugarbeets purchased (Table 9, Vol. II) multiplied by sugarbeets received (Table 6, Vol. II). Includes molasses and pulp payments in regions where growers participate.

3/ Includes abandonment and deficiency payments.

4/ Estimated.

G. Growers returns per ton of sugarbeets, United States (Table 9)

Crop year	Basis of payments 1/	Grower returns per ton sugarbeets purchased			
			Sugar Act payments		
	Net returns per cwt. sugar	Processor payments 2/	Sugarbeets	Abandonment and deficiency	Total
		Dollars			
1968	8.57	13.70	2.15	.06	15.91
1969 3/	8.91	12.82	2.02	.09	14.93

1/ Net returns from beet sugar are gross returns minus excise tax, delivery and minor marketing expenses as defined in the beet purchase contract.

2/ Basic payment. Includes growers' share in by-products where purchase contract provides for such sharing, but excludes allowances for hauling, pitting, siloing, etc.

3/ Estimated.

H. Net returns from beet sugar: distribution between growers and processors, United States 1/ (Table 10)

Crop year	Total returns excluding Government payments		Total returns including Government payments 2/	
	Grower	Processor	Grower	Processor
	Percent			
1968	63	37	66	34
1969 3/	64	36	67	33

1/ Payments received by growers from processors divided by net returns from sales of sugar (Table 8.)

2/ Includes abandonment and deficiency payments.

3/ Estimated.

I. Sugarbeets: number of farms, acreage planted and harvested, production and yield per harvested acre, by state and region

State and region	Table 11 number of farms		Table 12 Average planted acres per farm		Table 13 Acres planted		Table 14 Acres harvested		Table 15 Beet production		Table 16 Yield per harvested acre	
	1968	1969	1968	1969	1968	1969	1968	1969	1968	1969	1968	1969
FAR WEST	Number		Acres		1,000 acres				1,000 tons		Tons	
Arizona	.252	258	107.1	120.9	27.0	31.2	24.4	28.4	442	413	18.1	14.5
California	1,381	1,480	209.4	201.7	289.2	298.6	279.3	290.9	6,286	6,327	22.5	21.8
Idaho	2,696	2,727	72.8	76.1	196.3	207.5	182.3	185.6	3,288	3,373	18.0	18.2
Oregon	301	293	73.8	87.4	22.2	25.6	21.6	23.8	524	565	24.3	23.7
Washington	816	817	75.0	80.8	61.2	66.0	54.8	64.0	1,382	1,691	25.2	26.4
Total	5,446	5,575	109.4	112.8	595.9	628.9	562.4	592.7	11,922	12,369	21.2	20.8
CENTRAL												
Arkansas	-	3	-	24.3	-	0.1	-	0.1	-	1	-	10.3
Colorado	2,553	2,556	70.2	79.8	179.2	204.0	168.1	180.7	2,611	3,224	15.5	17.8
Iowa	18	19	88.9	100.0	1.6	1.9	1.5	1.7	19	20	12.7	11.4
Kansas	218	230	189.0	213.0	41.2	49.0	39.1	40.4	598	697	15.3	17.3
Minnesota	1,207	1,183	135.6	140.4	163.7	166.1	161.4	165.1	2,177	2,352	13.5	14.2
Missouri	-	7	-	33.3	-	0.2	-	0.2	-	2	-	10.1
Montana	904	871	74.7	79.1	67.5	68.9	65.7	67.5	1,034	1,206	15.7	17.9
Nebraska	1,218	1,244	62.6	74.6	76.3	92.8	72.3	87.3	1,223	1,673	16.9	19.2
New Mexico	42	52	104.8	134.6	4.4	7.0	4.1	5.5	86	90	21.0	16.4
North Dakota	829	831	106.5	115.2	88.3	95.7	87.2	95.1	1,122	1,331	12.9	14.0
Texas	385	440	103.9	112.7	40.0	49.6	37.9	37.4	824	717	21.7	19.2
Utah	955	1,010	31.7	34.9	30.3	35.2	29.3	31.8	495	558	16.9	17.6
Wyoming	793	782	81.3	88.0	64.5	68.8	62.1	67.4	1,003	1,254	16.2	18.6
Total	9,122	9,228	83.0	91.0	757.0	839.3	728.7	780.2	11,192	13,124	15.4	16.8
EASTERN												
Maine	288	129	88.5	96.9	25.5	12.5	22.2	10.8	111	69	5.0	6.4
Michigan	2,375	2,244	38.4	41.7	91.2	93.5	90.0	92.6	1,708	1,504	19.0	16.2
New Jersey	-	37	-	29.7	-	1.1	-	1.0	-	18	-	17.0
New York	82	156	39.0	51.9	3.2	8.1	3.1	7.8	53	109	17.2	13.9
Ohio	1,139	1,048	32.0	37.1	36.5	38.9	36.0	38.0	684	644	19.0	16.9
Pennsylvania	-	7	-	186.1	-	1.3	-	1.3	-	2.3	-	17.7
Total	3,884	3,621	40.3	42.9	156.4	155.4	151.3	151.5	2,556	2,367	16.9	15.6
TOTAL BEET AREA	18,452	18,424	81.8	88.1	1,509.3	1,623.8	1,442.4	1,524.4	25,670	27,860	17.8	18.3

J. Sugarbeets received and processed, sugar production, and rate of sugar produced, by regions (Table 17)

Item	Far West 1968	Far West 1969	Central 1968	Central 1969	Eastern 1968	Eastern 1969
Sugarbeets received for processing:						
Total received (1,000 tons)	11,794	12,287	11,319	13,207	2,557	2,360
Sucrose content 1/(percent)	15.22	15.21	16.05	14.14	15.44	16.45
Sugarbeets processed:						
Total sliced (1,000 tons)	12,236	12,663	11,012	12,229	2,422	2,295
Sucrose in cossettes (percent)	14.72	14.77	15.85	13.77	14.75	15.26
Beet sugar produced:						
Refined (1,000 cwt.) 2/	30,444	31,059	29,298	26,398	5,483	5,414
Raw value equivalent (1,000 tons)	1,629	1,662	1,567	1,412	293	290
Per ton of beets:						
Received (pounds refined)	258	253	259	200	214	229
Sliced " "	249	245	266	216	226	236
Percent total sugar in beets:						
Received (percent)	84.76	83.17	80.69	70.72	69.30	69.60
Sliced	84.58	82.94	83.91	78.43	76.61	77.33

1/ Represents the weighted average sucrose content upon which payments to producers are based in accordance with the terms of purchase contracts -- either sucrose content of cossettes (sliced sugarbeets) or sucrose content of sugarbeets at the time of delivery to processor weighted by appropriate tonnages.
2/ Gross production. Excludes adjustment for losses of sugar from handling, storage, conversion to liquid sugar, etc., prior to marketing.

K. Sugar Act payments to beet growers by states and regions, (Table 18)

1968

State and region	Producer-payees	Payments 1/ For sugar-beets marketed	Payments 1/ For acreage abandonment due to disaster	Payments 1/ For deficiency in yields	Payments 1/ Total	Average payment per farm 2/
	Number	Dollars				
FAR WEST						
Arizona	274	822,761	29,838	86,327	938,926	3,726
California	2,296	11,866,392	80,179	194,758	12,141,329	8,792
Idaho	4,933	7,288,253	123,847	162,490	7,574,590	2,810
Oregon	518	1,107,145	5,332	11,049	1,123,526	3,733
Washington	991	3,106,798	80,104	26,039	3,122,941	3,827
Total	9,012	24,101,349	319,300	480,663	24,901,312	4,572
CENTRAL						
Colorado	5,700	6,083,080	81,250	97,237	6,261,567	2,453
Iowa	22	49,267	165		49,432	2,746
Kansas	503	1,213,242	15,195	36,229	1,264,666	5,801
Minnesota	1,559	4,895,302	16,622	18,825	4,930,749	4,085
Montana	1,809	2,416,776	14,954	25,869	2,457,599	2,719
Nebraska	2,759	2,898,262	26,404	9,918	2,934,584	2,409
New Mexico	78	170,005	2,242	3,811	176,058	4,192
North Dakota	1,056	2,573,887	4,807	6,722	2,585,416	3,119
Texas	747	1,665,474	17,295	16,265	1,699,034	4,413
Utah	1,143	1,122,868	8,569	19,590	1,151,027	1,205
Wyoming	1,606	2,402,499	14,647	13,438	2,430,584	3,065
Total	16,982	25,490,662	202,150	247,904	25,940,716	2,844
EASTERN						
Maine	292	191,748	27,842	203,915	423,505	1,471
Michigan	3,686	3,784,362	5,409	650	3,790,421	1,596
New York	83	118,424	1,109	8	119,541	1,458
Ohio	1,817	1,581,704	2,656	5,098	1,589,458	1,395
Total	5,878	5,676,238	37,016	209,671	5,922,925	1,525
Total beet area	31,872	55,268,249	558,466	938,238	56,764,953	3,076

1/ Based on sugar commercially recoverable determined in accordance with the effective determinations issued pursuant to the Sugar Act.

2/ For number of farms see Table 11

K. Sugar Act payments to beet growers by states and regions, (Table 18)

1969

State & region	Producer payees	Payments 1/ For sugar-beets marketed	For acreage abandonment due to disaster	For deficiency in yields	Total	Average 2/ payment per farm
	Number	Dollars				
FAR WEST						
Arizona	280	720,337	24,832	132,766	877,935	3,403
California	2,484	12,697,773	137,389	233,446	13,068,608	8,830
Idaho	5,144	7,449,496	208,445	233,538	7,891,479	2,894
Oregon	495	1,179,744	4,482	3,486	1,187,712	4,054
Washington	1,014	3,630,706	15,184	34,926	3,680,816	4,505
Total	9,417	25,678,056	390,332	638,162	26,706,550	4,790
CENTRAL						
Arkansas	3	1,637	36		1,673	558
Colorado	5,703	5,923,908	243,817	217,529	6,385,254	2,498
Iowa	25	46,432	1,575	1,674	49,681	2,615
Kansas	573	1,137,284	62,596	56,037	1,255,917	5,460
Minnesota	1,544	5,223,114	3,238	488	5,226,840	4,418
Missouri	7	5,245	58	173	5,476	782
Montana	1,721	2,677,440	9,594	15,619	2,702,653	3,103
Nebraska	2,909	3,248,158	38,197	39,639	3,325,994	2,674
New Mexico	92	133,836	17,407	35,134	186,377	3,584
North Dakota	1,162	3,037,915	3,162	2,693	3,043,770	3,663
Texas	871	1,044,505	150,326	371,314	1,566,145	3,559
Utah	1,283	1,259,214	36,046	21,092	1,316,352	1,303
Wyoming	1,587	2,673,840	7,308	8,304	2,689,452	3,439
Total	17,479	26,412,528	573,360	769,696	27,755,584	3,008
EASTERN						
Maine	130	150,575	10,125	18,621	179,321	1,390
Michigan	3,586	3,543,181	5,658	22,374	3,571,213	1,591
Pennsylvania	7	39,303	97	71	39,471	5,639
New Jersey	37	35,371		174	35,545	961
New York	159	243,393	1,614	3,268	248,275	1,592
Ohio	1,699	1,378,667	9,482	63,472	1,451,621	1,385
Total	5,618	5,390,490	26,976	107,980	5,525,446	1,526
Total beet area	32,514	57,481,074	990,668	1,515,838	59,987,580	3,256

1/ Based on sugar commercially recoverable determined in accordance with the effective determinations issued pursuant to the Sugar Act.

2/ For number of farms see Table 11.

L. Growers returns per ton of sugarbeets purchased, by states and regions (Table 19)

State and region	Processor payments 1/		Sugar Act payments				Total	
			Sugarbeets		Abandonment & Defic			
	1968	1969	1968	1969	1968	1969	1968	1969
	Dollars							
FAR WEST								
Arizona *	10.79	10.20	1.87	1.75	.26	.38	12.92	12.33
California*	13.47	13.68	1.88	1.83	.04	.05	15.39	15.56
Idaho	14.36	14.51	2.22	2.22	.08	.13	16.66	16.86
Oregon	13.30	14.17	2.12	2.08	.03	.01	15.45	16.26
Washington	14.14	14.93	2.18	2.13	.08	.03	16.40	17.09
Region*	13.68	13.97	2.02	1.99	.06	.08	15.76	16.04
CENTRAL								
Arkansas	-	12.86	-	2.34	-	.05	-	15.25
Colorado	14.91	9.67	2.31	1.82	.07	.15	17.29	11.64
Iowa	12.86	14.00	2.13	2.04	.01	.14	15.00	16.18
Kansas	13.97	9.21	2.06	1.64	.09	.17	16.12	11.02
Minnesota	12.96	13.91	2.25	2.22	.02	-	15.23	16.13
Missouri	-	12.86	-	2.34	-	.12	-	15.32
Montana	15.03	14.02	2.33	2.22	.04	.02	17.40	16.26
Nebraska	15.13	9.59	2.40	1.97	.03	.04	17.56	11.60
New Mexico*	12.71	8.66	2.04	1.55	.07	.61	14.82	10.82
North Dakota	13.25	13.84	2.30	2.29	.01	-	15.56	16.13
Texas	12.73	7.56	2.01	1.45	.05	.72	14.79	9.73
Utah	14.92	13.73	2.28	2.24	.05	.10	17.25	16.07
Wyoming	15.33	13.45	2.39	2.13	.03	.02	17.75	15.60
Region*	14.21	11.68	2.28	2.01	.04	.10	16.53	13.79
EASTERN								
Maine	15.66	n.a.	1.72	2.17	2.07	.41	19.45	n.a.
Michigan	11.26	13.12	2.22	2.36	-	.01	13.48	15.49
New Jersey	-	n.a.	-	2.02	-	.01	-	n.a.
New YOrk	n.a.	n.a.	2.22	2.24	.02	.04	n.a.	n.a.
Ohio	12.88	12.08	2.31	2.11	.01	.11	15.20	14.30
Pennsylvania	-	n.a.	-	1.72	-	.01	-	n.a.
Region	11.90	12.81	2.22	2.28	.09	.05	14.21	15.14

1/ Basic payment. Includes grower's share in by-products where purchase contract provides for such sharing but excludes allowances for hauling, pitting, siloing, etc.
* Preliminary processor payments in 1969.

COMPANY NAME AND ADDRESS, FACTORY LOCATION OF CANE SUGAR REFINERS, BEET AND CANE SUGAR PROCESSORS, AND IMPORTERS OF DIRECT CONSUMPTION SUGAR - CONTINENTAL UNITED STATES, HAWAII, and PUERTO RICO

CANE SUGAR REFINERS

Company name & address	Factory location
Amstar Corporation 120 Wall Street New York, N.Y. 10005	Baltimore, Md. Boston, Mass. Brooklyn, N.Y. Chalmette, La. Philadelphia, Pa.
J. Aron & Company, Inc. 336 Magazine Street New Orleans, La. 70130	Supreme, La.
California & Hawaiian Sugar Company One California Street San Francisco,Calif.94106	Crockett,Calif. Aiea,(near Honolulu) Hawaii
Colonial Sugars Co. 500 Fifth Avenue New York, N.Y. 10036	Gramercy,La.
Florida Sugar Refinery,Inc. 500 Fifth Avenue New York, N.Y. 10036	Belle Glade, Fla.
Glades County Sugar Grower Coop. Assoc. P.O. Box 727 Moore Haven, Fla. 33471	Moore Haven, Fla.
Godchaux-Henderson Sugar Co.Inc. PO. Drawer 1667 Mobile, Alabama 36601	Reserve, La.
Imperial Sugar Co. P.O. Box 9 Sugar Land, Texas 77478	Sugar Land, Texas
Industrial Sugars, Inc. 500 Fifth Avenue New York, N.Y. 10036	St. Louis, Mo.
Maine Sugar Industries,Inc. Easton,Maine 04740	Easton,Maine
The National Sugar Refining Co. Two Pennsylvania Plaza New York, N.Y. 10001	Philadelphia, Pa
PepsiCo, Inc. Purchase, N.Y. 10577	Long Island City, N.Y.
Corn Industrial CPC International,Inc. International Plaza Englewood Cliffs,N.J.07632	Yonkers, N.Y.
Revere Sugar Refinery 333 Medford Street Charlestown,Mass. 02129	Charlestown,Mass.
Savannah Sugar Refining Corp. P.O. Box 339 Savannah,Ga. 31402	Port Wentworth,Ga Clewiston, Fla.
The South Coast Corp. 1420 Carondelet Building New Orleans, La. 70130	Mathews, La.
Southdown Lands, Inc. 1221 Commerce Bldg. P.O.Box 52378 New Orleans, La.70150	Houma, La.
SuCrest Corp. 120 Wall Street New York, N.Y. 10005	Brooklyn, N.Y. Chicago, Ill.

BEET SUGAR PROCESSORS

Company name & address	Factory location
The Amalgamated Sugar Co. P.O. Box 1520 First Security Bank Bldg. Ogden, Utah 84402	Lewiston, Utah Mini-Cassia, Idaho Nampa, Idaho Nyssa, Oreg. Twin Falls,Idaho
American Crystal Sugar Co. 600 Boston Building Denver,Colo. 80202	Chaska,Minn. 1/ Clarksburg,Calif. Crookston,Minn. Drayton,N.D. East Grand Forks, Minn. Mason City,Iowa Moorhead,Minn. Rocky Ford,Colo.

continued

BEET SUGAR PROCESSORS (cont'd)

Company name & address	Factory location
Buckeye Sugars, Inc. P.O. Box 150 Ottawa, Ohio 45875	Ottawa, Ohio
The Great Western Sugar Company Sugar Building P.O. Box 5308 Denver, Colo. 80217 (Also see Northern Ohio Sugar Co.)	Bayard, Nebr. Billings, Mont. Brighton,Colo. Eaton, Colo. Ft. Morgan,Colo. Gering, Nebr. Goodland, Kan. Greeley,Colo. Johnstown,Colo. Longmont,Colo. Loveland,Colo. Lovell,Wyo. Mitchell, Nebr. Ovid,Colo. Scottsbluff,Nebr. Sterling,Colo.
Holly Sugar Corp. PO Box 1052 Holly Sugar Building Colorado Springs,Colo.80901	Brawley,Calif. Delta,Colo. Hamilton City,Calif. Hardin,Mont. 1/ Hereford,Tex. Santa Ana,Calif. Sidney,Mont. Torrington,Wyo. Tracy,Calif. Worland,Wyo.
Maine Sugar Industries,Inc. Easton, Maine 04740	Easton,Maine
Michigan Sugar Co. 9th floor Second National Bank Bldg. P.O.Box 1091 Saginaw, Mich. 48606	Caro, Mich. Carrollton,Mich. Croswell,Mich. Sebewaing, Mich.
Monitor Sugar Co. 2600 S. Euclid Ave. Bay City, Mich. 48706	Bay City, Mich.
Northern Ohio Sugar Co. (Subsidiary of The Great Western Sugar Co.) Sugar Building P.O. Box 5308 Denver, Colo. 80217	Findlay, Ohio Fremont, Ohio
Spreckels Sugar Co. 2 Pine Street San Francisco,Calif. 94111	Chandler, Ariz. Manteca, Calif. Mendota, Calif. Spreckels,Calif. Woodland, Calif.
Union Sugar Div. Consol. Foods Corp. 230 California Street San Francisco,Calif. 9411	Betteravia,Calif.
Utah-Idaho Sugar Co. 200 Beneficial Life Bldg. 47 West South Temple PO Box 2010 Salt Lake City, Utah 84110	Garland, Utah Idaho Falls,Idaho Moses Lake, Wash. Toppenish, Wash. West Jordan,Utah 1/

MAINLAND SUGAR CANE PROCESSORS

Company name & address	Factory location
Albania Sugar Co.Inc. Jeanerette,La. 70544	Jeanerette, La.
Alma Plantation, Ltd. Lakeland, La. 70752	Lakeland, La.
J. Aron & Company,Inc. Supreme,La. 70396	Supreme,La. 2/
Atlantic Sugar Association PO Box 370 Belle Glade,Fla. 33430	15 miles east of Belle Glade,Fla.
Billeaud Sugar Company P.O. Box 98 Broussard, La. 70518	Broussard, La.
Breaux Bridge Sugar Coop.Inc. P.O. Box 236 Breaux Bridge,La. 70517	Breaux Bridge,La.
Wm. T. Burton Industries,Inc. White Castle,La. 70788	White Castle,La. (Cedar Grove mill)
Caire & Graugnard PO Box 7 Edgard,La. 70049	Edgard,La. (Columbia mill) 3/
Cajun Sugar Coop. Inc. PO Box 1179 New Iberia, La. 70560	New Iberia, La.
Caldwell Sugars Coop.,Inc. RFD. Thibodaux,La. 70301	Thibodaux,La.
Colombia Sugar Company Box 344 Franklin, La. 70538	Franklin,La.
Cora-Texas Mfg. Co.,Inc. P.O. Box 248 White Castle,La. 70788	White Castle,La. 3/
Dugas & LeBlanc,Ltd. Paincourtville,La. 70391	Paincourtville,La. (Westfield mill)

Continued

MAINLAND SUGARCANE PROCESSORS (cont'd)

Company name & address	Factory location
Duhe & Bourgeois Sugar Co. P.O. Box 648 Jeanerette, La. 70544	Jeannerette, La. 3/
Evan Hall Sugar Coop. Inc. P.O. Box 431 Donaldsonville,La. 70346	McCall, La.
Florida Sugar Corporation P.O. Box 1001 Belle Glade, Fla. 33430	11 miles east of Belle Glade, Fla.
Frisco Cane Co.,Inc. Reserve, La. 70084	Reserve, La. (San Francisco mill) 3/
Glades County Sugar Growers Coop. Assn. 2/ P.O. Box 727 Moore Haven,Fla. 33471	Moore Haven, Fla.
Glenwood Coop., Inc. Napoleonville, La. 70390	Napoleonville, La.
Helvetia Sugar Coop.Inc. Route 1 Convent, La. 70723	Convent, La.
Iberia Sugar Coop., Inc. P.O. Box 1389 New Iberia, La. 70561	New Iberia, La.
LaFourche Sugar Co. P.O. Box 555 Thibodaux,La. 70301	Thibodaux,La. (Leighton mill)
Harry L. Laws & Co.,Inc. Brusly, La. 70719	Brusly,La. (Cinclare mill)
Levert-St. John,Inc. Route 1, Box 10 St. Martinville,La. 70582	St. Martinville,La. (St. John mill)
Louisiana State Penitentiary Angola Factory Angola, La. 70712	Angola, La.
Louisiana State University Audubon Sugar Factory Baton Rouge, La. 70803	Baton Rouge, La.
Louisa Sugar Coop. Inc. Louisa, La. 70553	Louisia, La.
Meeker Sugar Coop., Inc. Meeker Rural Station Lecompte, La. 71346	LeCompte, La.
Milliken & Farwell, Inc. Port Allen,La. 70767	Port Allen, La.
Osceola Farms Company P.O. Box 679 Pahokee,Fla. 33476	on Route 98-7 miles east of Canal Point,Fla.
M.A. Patout & Son,Ltd. Route 1,Box 288 Jeanerette,La. 70544	Jeanerette,La. (Enterprise mill)

Company name & address	Factory location
Poplar Grove Pltg.& Rfg. Co., Inc. Port Allen, La. 70767	Port Allen, La.
St. James Sugar Coop.,Inc. St. James, La. 70086	St. James,La.
St. Mary Sugar Coop.,Inc. P.O. Box 269 Jeanerette, La. 70544	Jeanerette, La.
Lulu Factory Inc. Savoi Farms Inc. Belle Rose,La. 70341	Belle Rose, La. (Lula mill)
South Coast Corp. Carondelet Building New Orleans, La. 70130	Franklin,La. (Oaklawn mill) Mathews, La. (Georgia mill) 2/ Montegut, La. (Terrebonne mill) Raceland, La. 3/ (Raceland mill)
Southdown Lands,Inc. 1221 Commerce Bldg. P.O. Box 52378 New Orleans,La. 70150	Houma,La. (Southdown mill) 2/ Thibodaux, La. (Greenwood mill) Vacherie, La. (Armant mill)
South Puerto Rico Sugar Company Okeelanta Division P.O. Box 86 South Bay,Fla. 33493	South Bay,Fla.
Sterling Sugars, Inc. P.O. Box 572 Franklin, La. 70538	Franklin,La.
Sugar Cane Growers Coop. of Florida P.O. Box 426 Belle Glade,Fla.33430	Belle Glade,Fla.
J. Supple's Sons Pltg. Co.Ltd. Bayou Goula,La. 70716	Bayou Goula,La. (Catherine mill) 3/
Talisman Sugar Corp. P.O. Box 814 Belle Glade,Fla. 33430	17 miles south of South Bay,Fla.
United States Sugar Corp. PO Drawer 1207 Clewiston,Fla.33440	Clewiston,Fla. Bryant,Fla.
Valentine Sugars,Inc. R.F.D. 1 Lockport, La. 70374	Lockport,La.
Vida Sugars, Inc. P.O. Box 336 Loreauville,La. 70552	Loreauville,La.
A. Wilbert's Sons Lbr.& Sh.Co. P.O. Box 540 Plaquemine,La. 70764	Plaquemine,La. (Myrtle Grove mill)

Continued

HAWAII

All but one of the plantations in the Hawaiian Islands are corporate entities. To facilitate the actual production of sugar, all plantations but one are represented by agents or a parent company in Honolulu. Several have mainland offices. Controlling interest in some plantations is held by an agency or parent company; other plantations are merely clients.

The agencies in Hawaii, plantations they represent and the Post Office address, indicating the island on which each is located, are as follows:

Agency	Plantation name and address
Alexander & Baldwin, Ltd. PO Box 3440 Honolulu, Hawaii 96801	Hawaiian Commercial & Sugar Co. Puunene, Maui 96784
	Kahuku Plantation Co. Kahuku, Oahu 96731
	McBryde Sugar Co., Ltd. Eleele, Kauai 96705
Amfac, Inc. P.O. Box 3230 Honolulu, Hawaii 96801	Kekaha Sugar Co.,Ltd. Kekaha, Kauai 96752
	Lihue Plantation Co.,Ltd. Lihue, Kauai 96766
	Oahu Sugar Co., Ltd. Waipahu, Oahu 96797
	Puna Sugar Co.,Ltd. Keaau, Hawaii 96749
	Pioneer Mill Co., Ltd. Lahaina, Maui 96761
Bishop Trust Co.,Ltd. Honolulu, Hawaii 96802	Gay & Robinson Makaweli, Kauai 96769
C. Brewer & Co.,Ltd. P.O.Box 3470 Honolulu, Hawaii 96801	Hawaiian Agricultural Co. Pahala, Hawaii 96777
	Hutchinson Sugar Co.,Ltd. Naalehu, Hawaii 96772
C.Brewer & Co.Ltd. (Cont'd)	Kilauea Sugar Co. Ltd. Kilauea, Kauai 96754
	Mauna Kea Sugar Co.Inc. Hilo,Hawaii 96720
	Olokele Sugar Co.,Ltd. Kaumakani,Kauai 96747
	Paauhau Sugar Co.,Ltd. Paauhau, Hawaii 96775
	Pepeekeo Sugar Co. Pepeekeo,Hawaii 96783
	Wailuku Sugar Co. Wailuku, Maui 96793
Castle & Cooke, Inc. P.O.Box 2990 Honolulu, Hawaii 96802	Kohala Sugar Co. Hawi, Hawaii 96719
	Waialua Sugar Co.,Inc. Waialua, Oahu 96791
Theo.H.Davies & Co.Ltd. P.O. Box 3020 Honolulu, Hawaii 96802	Hamakua Mill Co., Paauilo,Hawaii 96776
	Honokaa Sugar Co. Haina, Hawaii 96709
	Laupahoehoe Sugar Co. Papaaloa, Hawaii 96780
Grove Farm Co. Inc.	Grove Farm Co., Inc. Puhi, Kauai 96766

Continued

PUERTO RICO

Sugarcane processors	Central
Antonio Roig Sucesores,Inc. Humacao, P.R. 00661	Roig
Asociacion Azucarera Cooperativa Lafayette Arroyo, P.R. 00615	Lafayette
The New Central Aguirre Land Administration of Puerto Rico Aguirre, P.R. 00608	Aguirre 2/ Cortada
Central Coloso, Inc. P.O. Box 2912 San Juan, P.R. 00903	Coloso
Central Eureka, Inc. P.O. Box 419 Mayaguez, P.R. 00708	Eureka
Central Igualdad, Inc. P.O. Box 599 Mayaguez, P.R. 00708	Igualdad
Central Mercedita, Inc. Mercedita, P.R. 00715	Mercedita
Central Monserrate, Inc. Box 445 Manati, P.R. 00701	Monserrate
Central San Francisco Box 5 Yauco, P.R. 00768	San Francisco 2/
Cooperative Azucarera Central Juncos Box 519 Juncos, P.R. 00666	Juncos
Land Authority Commonwealth of Puerto Rico P.O. Box 9745 Santurce,P.R. 00908	Cambalache Fajardo
Plata Sugar Company, Inc. P.O. Box 228 San Juan, P.R. 00902	Plata
Central Guanica Land Administration of Puerto Rico Ensenada, P.R. 00647	Guanica 3/

Refiners

Central Roig Refining Co.
Humacao, P.R. 00661

Puerto Rican American Sugar Refinery, Inc.
Mercedita, P.R. 00715

Western Sugar Refining Co.
Box 6
Mayaguez, P.R. 00709

SUGAR IMPORTERS 4/

Amerop Corporation*
110 Wall Street
New York, N.Y. 10005

Cargill, Incorporated
2 Broadway
New York, N.Y. 10004

Christman Commodity Associates,Inc.*
5 Hanover Square
New York, N.Y. 10004

Czarnikow-Rionda Sugar Company
120 Wall Street
New York, N.Y. 10005

Davies,Theo.H. & Company,Ltd.
160 Broadway
New York, N.Y. 10036

Dreyfus, Louis Corporation
26 Broadway
New York, N.Y. 10004

Dyer Trading Corporation
120 Wall Street
New York, N.Y. 10005

Farr Whitlock Dixon & Co.Inc.
100 Garden City Plaza
Garden City, N.Y. 11530

M. Golodetz & Company*
120 Wall Street
New York, N.Y. 10005

Haytian Purchasing Corp.
120 Wall Street
New York, N.Y. 10005

Hogan & Company,Inc.
120 Wall Street
New York, N.Y. 10005

Lamborn & Company,Inc.*
99 Wall Street
New York, N.Y. 10005

Scarsugar,Inc.
39 Broadway
New York,N.Y. 10004

Marubeni-Iida (America),Inc.
200 Park Avenue
New York, N.Y. 10017

Mitsubishi International Corp.
277 Park Avenue
New York, N.Y. 10017

Nissho-Iwai American Corp.
80 Pine Street
New York, N.Y. 10001

Pine Street Trading Corp. **
110 Wall Street
New York, N.Y. 10005

Roig & Company, Inc. **
120 Wall Street
New York, N.Y. 10005

Gulf & Western Americas Corp.
1 Gulf & Western Plaza
New York, N.Y. 10023

1/ May not operate in 1971.
2/ Also produce and market sugar for direct-consumption.
3/ Also refines sugar.
4/ The firms listed act principally as brokers of raw sugar. Those with an (*) also imported direct-consumption sugar during the last two years. Those with two (**) imported direct consumption sugar only during the two year period.

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Stabilization and Conservation Service
Washington D.C. 20250

OFFICIAL BUSINESS

POSTAGE & FEES PAID
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